CDP Research Update -- October 9, 2014

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- Links of Interest
- Resource of the Week: National Library of Medicine -- Gallery of Mobile Apps and Sites

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http://www.dav.org/women-veterans-study/

Women Veterans: The Long Journey Home

DAV (Disabled American Veterans), 2014

The research reveals that America's nearly 300,000 women veterans are put at risk by a system designed for and dominated by male veterans.

This report paints a compelling picture of federal agencies and community service providers that consistently fail to understand that women are impacted by military service and deployment differently than men. And it points to changes that are needed in the overall culture and services provided by the federal government and local communities, listing 27 specific recommendations.

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http://onlinelibrary.wiley.com/doi/10.1111/jsr.12243/abstract

Psychomotor vigilance performance predicted by Epworth Sleepiness Scale scores in an operational setting with the United States Navy.

Nita Lewis Shattuck and Panagiotis Matsangas

Journal of Sleep Research
Article first published online: 1 OCT 2014

It is critical in operational environments to identify individuals who are at higher risk of psychomotor performance impairments. This study assesses the utility of the Epworth Sleepiness Scale for predicting degraded psychomotor vigilance performance in an operational environment. Active duty crewmembers of a USA Navy destroyer (N = 69, age 21–54 years) completed the Epworth Sleepiness Scale at the beginning of the data collection period. Participants wore actigraphs and completed sleep diaries for 11 days. Psychomotor vigilance tests were administered throughout the data collection period using a 3-min version of the psychomotor vigilance test on the actigraphs. Crewmembers with elevated scores on the Epworth Sleepiness Scale (i.e. Epworth Sleepiness Scale >10) had 60% slower reaction times on average, and experienced at least 60% more lapses and false starts compared with individuals with normal Epworth Sleepiness Scale scores (i.e. Epworth Sleepiness Scale ≤10). Epworth Sleepiness Scale scores were correlated with daily time in bed ($P < 0.01$), sleep ($P < 0.05$), mean reaction time ($P < 0.001$), response speed 1/reaction time ($P < 0.05$), slowest 10% of response speed ($P < 0.001$), lapses ($P < 0.01$), and the sum of lapses and false starts ($P < 0.001$). In this chronically sleep-deprived population, elevated Epworth Sleepiness Scale scores identified that subset of the population who experienced degraded psychomotor vigilance performance. We theorize that Epworth Sleepiness Scale scores are an indication of personal sleep debt that varies depending on one's individual sleep requirement. In the absence of direct

performance metrics, we also advocate that the Epworth Sleepiness Scale can be used to determine the prevalence of excessive sleepiness (and thereby assess the risk of performance decrements).

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http://online.liebertpub.com/doi/abs/10.1089/neu.2014.3433

Structured interview for Mild Traumatic Brain Injury after military blast: interrater agreement and development of diagnostic algorithm.

Dr. William Walker, Dr. David X Cifu, Dr. Anne Hudak, Dr. Gary Goldberg, Dr. Richard D Kunz, and Prof. Adam Sima

Journal of Neurotrauma
Online Ahead of Editing: September 29, 2014

The existing gold standard for diagnosing a suspected prior mild Traumatic Brain Injury (mTBI) is clinical interview. But it is prone to bias, especially for parsing the physical versus psychological effects of traumatic combat events, and its interrater reliability is unknown. Several standardized TBI interview instruments have been developed for research use but have similar limitations. Therefore, we developed the VCU retrospective concussion diagnostic interview, blast version (VCU rCDI-B) and undertook this cross-sectional study aiming to: 1) measure agreement among clinicians' mTBI diagnosis ratings, 2) using clinician consensus develop a fully structured diagnostic algorithm, and 3) assess accuracy of this algorithm in a separate sample. Two samples (n=66, n=37) of individuals within two years of experiencing blast effects during military deployment underwent semi-structured interview regarding their worst blast experience. Five highly trained TBI physicians independently reviewed and interpreted the interview content and gave blinded ratings of whether or not the experience was probably an mTBI. Paired interrater reliability was extremely variable with kappa ranging 0.194-0.825. In Sample-1, the physician consensus prevalence of probable mTBI was 84%. Using these diagnosis ratings, an algorithm was developed and refined from the fully structured portion of the VCU rCDI-B. The final algorithm considered certain symptom patterns more specific for mTBI than others. For example, an isolated symptom of "saw stars" was deemed sufficient to indicate mTBI whereas an isolated symptom of "dazed" was not. The accuracy of this algorithm when applied against the actual physician consensus in Sample-2 was almost perfect (correctly classified = 97%, Cohen's kappa=0.91). In conclusion, we found that highly trained clinicians often disagree on historical blast-related mTBI determinations. A fully structured interview algorithm was developed from their consensus diagnosis that may serve to enhance diagnostic standardization for clinical research in this population.

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http://onlinelibrary.wiley.com/doi/10.1002/acn3.98/full

Concussive brain injury from explosive blast.

de Lanerolle, N. C., Hamid, H., Kulas, J., Pan, J. W., Czlapinski, R., Rinaldi, A., Ling, G., Bandak, F. A. and Hetherington, H. P

Annals of Clinical and Translational Neurology
Volume 1, Issue 9, pages 692–702, September 2014

Objective
Explosive blast mild traumatic brain injury (mTBI) is associated with a variety of symptoms including memory impairment and posttraumatic stress disorder (PTSD). Explosive shock waves can cause hippocampal injury in a large animal model. We recently reported a method for detecting brain injury in soldiers with explosive blast mTBI using magnetic resonance spectroscopic imaging (MRSI). This method is applied in the study of veterans exposed to blast.

Methods
The hippocampus of 25 veterans with explosive blast mTBI, 20 controls, and 12 subjects with PTSD but without exposure to explosive blast were studied using MRSI at 7 Tesla. Psychiatric and cognitive assessments were administered to characterize the neuropsychiatric deficits and compare with findings from MRSI.

Results
Significant reductions in the ratio of N-acetyl aspartate to choline (NAA/Ch) and N-acetyl aspartate to creatine (NAA/Cr) ($P < 0.05$) were found in the anterior portions of the hippocampus with explosive blast mTBI in comparison to control subjects and were more pronounced in the right hippocampus, which was 15% smaller in volume ($P < 0.05$). Decreased NAA/Ch and NAA/Cr were not influenced by comorbidities – PTSD, depression, or anxiety. Subjects with PTSD without blast had lesser injury, which tended to be in the posterior hippocampus. Explosive blast mTBI subjects had a reduction in visual memory compared to PTSD without blast.

Interpretation
The region of the hippocampus injured differentiates explosive blast mTBI from PTSD. MRSI is quite sensitive in detecting and localizing regions of neuronal injury from explosive blast associated with memory impairment.

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http://publications.amsus.org/doi/abs/10.7205/MILMED-D-13-00574

Comparing U.S. Army Suicide Cases to a Control Sample: Initial Data and Methodological Lessons.

Cynthia L. Alexander, PhD, JD; Mark A. Reger, PhD; Derek J. Smolenski, PhD, MPH; Nicole R. Fullerton, MSW

Military Medicine
Volume 179 Issue 10, October 2014, pp. 1062-1066

Identification of risk and protective factors for suicide is a priority for the United States military, especially in light of the recent steady increase in military suicide rates. The Department of Defense Suicide Event Report contains comprehensive data on suicides for active duty military personnel, but no analogous control data is available to permit identification of factors that differentially determine suicide risk. This proof-of-concept study was conducted to determine the feasibility of collecting such control data. The study employed a prospective case-control design in which control cases were randomly selected from a large Army installation at a rate of four control participants for every qualifying Army suicide. Although 111 Army suicides were confirmed during the study period, just 27 control soldiers completed the study. Despite the small control sample, preliminary analyses comparing suicide cases to controls identified several factors more frequently reported for suicide cases, including recent failed intimate relationships, outpatient mental health history, mood disorder diagnosis, substance abuse history, and prior self-injury. No deployment-related risk factors were found. These data are consistent with existing literature and form a foundation for larger control studies. Methodological lessons learned regarding study design and recruitment are discussed to inform future studies.

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http://link.springer.com/article/10.1007/s11102-014-0606-5

Growth hormone deficiency after mild combat-related traumatic brain injury.

Adriana G. Ioachimescu, Benjamin M. Hampstead, Anna Moore, Elizabeth Burgess, Lawrence S. Phillips

Pituitary
September 2014

Objective
Traumatic brain injury (TBI) has been recognized as a cause of growth hormone deficiency (GHD) in civilians. However, comparable data are sparse in veterans who incurred TBI during combat. Our objective was to determine the prevalence of GHD in veterans with a history of combat-related TBI, and its association with cognitive and psychosocial dysfunction.

Design
Single center prospective study.

Patients
Twenty male veterans with mild TBI incurred during combat 8–72 months prior to enrollment.

Measurements
GHD was defined by a GH peak <3 μg/L during glucagon stimulation test. Differences in neuropsychological, emotional, and quality of life of the GHD Veterans were described using Cohen's d. Large effect sizes were considered meaningful.

Results
Mean age was 33.7 years (SD 7.8) and all subjects had normal thyroid hormone and cortisol levels. Five (25 %) exhibited a subnormal response to glucagon. Sixteen participants (80 %) provided sufficient effort for valid neuropsychological assessment (12 GH-sufficient, 4 GHD). There were large effect size differences in self-monitoring during memory testing (d = 1.46) and inhibitory control (d = 0.92), with worse performances in the GHD group. While fatigue and post-traumatic stress disorder were comparable, the GHD group reported more depression (d = 0.80) and lower quality of life (d = 0.64).

Conclusions
Our study found a 25 % prevalence of GHD in veterans with mild TBI as shown by glucagon stimulation. The neuropsychological findings raise the possibility that GHD has adverse effects on executive abilities and mood. Further studies are needed to determine whether GH replacement is an effective treatment in these patients.

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http://publications.amsus.org/doi/abs/10.7205/MILMED-D-14-00011

Insomnia Treatment Experience and Preferences Among Veterans Affairs Primary Care Patients.

RL Shepardson, JS Funderburk, WR Pigeon, Stephen A. Maisto

Military Medicine
Volume 179 Issue 10, October 2014, pp. 1072-1076

Insomnia is common, but undertreated, among primary care patients. Within the Veterans Health Administration (VA), increasing attention has been given to the treatment of insomnia within primary care settings, but little research has examined Veterans' treatment preferences. We examined preferences for sleep treatment among VA primary care patients. Participants (N = 126: 98% male, 89% white; M age = 60 years) completed a brief survey. On the basis of Insomnia Severity Index scores, 22% reported subthreshold and 13% moderate insomnia. Fifty percent reported having issues with sleep (falling asleep, staying asleep, or sleeping too much) in the past 12 months; among these, only 44% reported any discussion of medication (34%) or

other strategies (32%) to improve sleep with medical providers. The most preferred treatment approach was to work it out on one's own, followed by consulting the primary care provider (PCP). The most preferred modality was a one-on-one meeting with the PCP, followed by a one-on-one meeting with the behavioral health provider. In conclusion, VA primary care patients preferred handling sleep problems on their own, but if seeking help, they preferred working with PCPs over behavioral health providers. The majority of Veterans preferred individual treatment and strategies other than medication.

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http://publications.amsus.org/doi/abs/10.7205/MILMED-D-13-00414

Residual Injury, Appearance-Related Concerns, Symptoms of Post-Traumatic Stress Disorder, and Depression Within a Treatment-Seeking Veteran Sample.

Terri L. Weaver; Kristen H. Walter; Kathleen M. Chard; Jeane Bosch

Military Medicine
Volume 179 Issue 10, October 2014, pp. 1067-1071

This study explored the associations among injury-related appearance changes experienced during deployment/combat, symptom severity of post-traumatic stress disorder and depression, and body image distress within a treatment-seeking veteran population (n = 91). Thirty-three percent of the sample reported having an appearance-related residual injury experienced during combat or deployment (n = 30). A subsample, who completed the body image distress measure (n = 69), was divided into two groups: those with an appearance-related residual injury (n = 22) and those without an appearance-related residual injury (n = 47). Correlational analyses revealed significant, positive correlations between body image distress and depression symptom severity. Results also showed a trend relationship between body image distress and post-traumatic stress disorder symptom severity for those with an appearance-related residual injury although correlations were nonsignificant among these constructs for those without an appearance-related residual injury. Multiple regression analyses revealed that body image distress was a unique predictor of depression symptom severity, controlling for residual injury status. Implications of these findings for exploring the psychological impact of residual injury were discussed.

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http://publications.amsus.org/doi/abs/10.7205/MILMED-D-13-00309

Effects of Cognitive Processing Therapy on PTSD-Related Negative Cognitions in Veterans With Military Sexual Trauma.

Ryan Holliday; Jessica Link-Malcolm; Elizabeth E. Morris; Alina Surís

Military Medicine
Volume 179 Issue 10, October 2014, pp. 1077-1082

Treating post-traumatic stress disorder (PTSD) related to military sexual trauma (MST) continues to be a priority in veteran populations. Because negative cognitions (NCs) contribute to PTSD severity and treatment, further understanding of how PTSD and related NCs can be addressed and changed within an MST sample is important. Our study analyzed 45 participants who received either cognitive processing therapy ($n = 32$) or present centered therapy ($n = 13$). Participants who received cognitive processing therapy had significantly lower NCs scores post-treatment and at follow-up sessions than participants in the present centered therapy condition ($p < 0.05$). In addition, NCs were positively correlated with PTSD severity ($p < 0.05$). Implications for future research are discussed for both MST-related and non-MST-related PTSD.

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http://publications.amsus.org/doi/abs/10.7205/MILMED-D-13-00435

A Review of Mild Traumatic Brain Injury Diagnostics: Current Perspectives, Limitations, and Emerging Technology.

LT Glen A. Cook, MC USN; LTC Jason S. Hawley, MC USA

Military Medicine
Volume 179 Issue 10, October 2014, pp. 1083-1089

Mild traumatic brain injury (mTBI) or concussion is a common battlefield and in-garrison injury caused by transmission of mechanical forces to the head. The energy transferred in such events can cause structural and/or functional changes in the brain that manifest as focal neurological, cognitive, or behavioral dysfunction. Current diagnostic criteria for mTBI are highly limited, variable, and based on subjective self-report. The subjective nature of the symptoms, both in quantity and quality, together with their large overlap in other physical and behavioral maladies, limit the clinician's ability to accurately diagnose, treat, and make prognostic decisions after such injuries. These diagnostic challenges are magnified in an operational environment as well. The Department of Defense has invested significant resources into improving the diagnostic tools and accuracy for mTBI. This focus has been to supplement the clinician's examination with technology that is better able to objectify brain dysfunction after mTBI. Through this review, we discuss the current state of three promising technologies—soluble protein biomarkers, advanced neuroimaging, and quantitative electroencephalography—that are of particular interest within military medicine.

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http://publications.amsus.org/doi/abs/10.7205/MILMED-D-14-00151

Stellate Ganglion Block Used to Treat Symptoms Associated With Combat-Related Post-Traumatic Stress Disorder: A Case Series of 166 Patients.

Sean W. Mulvaney, MD; James H. Lynch, MD; Matthew J. Hickey, DO; Tabassum Rahman-Rawlins, PsyD; Matthew Schroeder, PhD; Shawn Kane, MD; Eugene Lipov, MD

Military Medicine
Volume 179 Issue 10, October 2014, pp. 1133-1140

Objective:
Report the successful use of stellate ganglion blocks (SGBs) in 166 active duty service members with multiple combat deployments experiencing anxiety symptoms associated with post-traumatic stress disorder (PTSD).

Background:
Successful treatment of PTSD symptoms with SGB has been reported previously. This is the largest published case series evaluating SGB with a minimum of 3 months follow-up.

Methods:
Following clinical interview including administration of the PTSD Checklist (PCL), 166 service members with symptoms of PTSD elected to receive a SGB. All patients received a SGB on the right side at the level of the sixth cervical vertebrae (C6). The PCL was administered the day before treatment to establish a baseline, repeated 1 week later, and then monthly out to 3 months. Positive response was considered to be an improvement in the PCL score by 10 +points. Follow-up PCL scores from 3 to 6 months were obtained and analyzed for 166 patients.

Results:
In a military population with multiple combat deployments, over 70% of the patients treated had a clinically significant improvement in their PCL score which persisted beyond 3 to 6 months postprocedure.

Conclusion:
Selective blockade of the right cervical sympathetic chain at the C6 level is a safe and minimally invasive procedure that may provide durable relief from anxiety symptoms associated with PTSD.

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http://onlinelibrary.wiley.com/doi/10.1002/j.2161-1882.2014.00062.x/abstract

Examining Treatment-Seeking College Students With and Without Military Experience and Trauma Histories.

Johnson, M. C., Graceffo, J. M., Hayes, J. A. and Locke, B. D.

Journal of College Counseling
Volume 17, Issue 3, pages 260–270, October 2014

An increasing number of veterans are returning from war, many with mental health problems. Some of these returning veterans will enroll in college, and it is important that campus counseling centers can meet the needs of this population. This study examined psychological distress among students with and without military experience. Results indicated that students with military experience showed elevated rates of hostility and family concerns. Clinical implications are discussed.

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http://chss.gmu.edu/defenses/748

Psychological Well-Being in Iraq and Afghanistan Veterans: A Broader Model of Risk and Protective Factors.

Jeffrey Bergmann

PhD Dissertation
George Mason University, Department of Psychology, 2014

Veterans of the recent military conflicts in Afghanistan and Iraq have been the subject of multiple studies, with the majority focusing on elevated rates of posttraumatic stress disorder (PTSD) and other related negative outcomes (traumatic brain injury, suicide, marital problems). There are a handful of studies focusing on quality of life and well-being, but most are limited to constructs of meaning in life and posttraumatic growth, and the associations of such constructs with PTSD symptoms. To fully understand positive outcomes in this population, a broader understanding of psychological health and well-being, as well as a broader model of risk and protective factors, is needed. The present study focuses on the broad construct of psychological well-being (PWB) in veterans who have served during the recent conflicts in Iraq and Afghanistan, with an examination of other risk factors (sleep problems and depression) beyond PTSD symptoms, as well as a positive facet of the military experience (enhanced self-regulation). Primary hypotheses were that sleep and depression would account for some of the negative association of PTSD with PWB, that self-regulation would be positively associated with PWB even when accounting for these risk factors, and that the association of risk factors with PWB would be weaker at higher levels of self-regulation.

Two hundred thirty-eight student veterans completed self-report measures at baseline, with 115 completing measures again 2 to 3 months later. PWB was modeled as a latent variable, and all analyses were completed cross-sectionally at both time points and longitudinally across time

points. The significant, negative correlations of PTSD scores with PWB scores within and across both time points confirmed the first hypothesis that PTSD symptoms would have a significant negative association with psychological well-being. Structural equation models examining the simultaneous associations of PTSD, depression, sleep problems, and self-regulation revealed significant, large associations of PWB with depression and self-regulation in expected directions within and across both time points. Associations with PTSD were small, with significant associations in cross-sectional models but not the longitudinal model. Associations with sleep were also small, with a significant association only in one of the cross-sectional models. Overall, the pattern of findings was consistent with the notion that depression, but not sleep problems, accounts for some of the association of PTSD with PWB, in partial support of hypothesis 2. Also, in support of hypothesis 3, self-regulation had a significant positive association with psychological well-being, even when controlling for the effects of PTSD, sleep problems, and depression. Finally, interactions between self-regulation and the three risk factors were nonsignificant in both cross-sectional models, but the interactions of self-regulation with both PTSD and depression were significant in the longitudinal model. Contrary to our hypotheses, however, the negative associations of both PTSD and depressive symptoms with later PWB grew stronger as levels of self-regulation increased. This finding may indicate that higher scores on our measure of self-regulation indicate maladaptive attempts to control one's emotions, but further research that attempts to replicate these findings is needed.

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http://journals.psychiatryonline.org/article.aspx?articleid=1912431

Social Support and Mental Health Treatment Among Persons With PTSD: Results of a Nationally Representative Survey.

Rebecca K. Sripada, Ph.D.; Paul N. Pfeiffer, M.D., M.S.; Sheila A. M. Rauch, Ph.D.; Kipling M. Bohnert, M.D.

Psychiatric Services 2014; doi: 10.1176/appi.ps.201400029

Objective
Despite continued outreach efforts, levels of mental health care utilization for posttraumatic stress disorder (PTSD) remain low. As such, it is important to identify factors that may promote or discourage treatment engagement. This study was designed to examine the association between perceived social support and utilization of several types of PTSD services.

Methods
Data came from wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions, which was administered between 2004 and 2005. PTSD was assessed via structured interview, and perceived social support was assessed via the Interpersonal Support Evaluation List–12. Participants were asked about receipt of four modalities of PTSD-specific treatment: outpatient, hospitalization, emergency department visits, and psychiatric medication

prescriptions. Weighted logistic regression modeling was performed to examine associations between social support scores and the odds of receiving treatment for PTSD, and the analyses were adjusted for sociodemographic characteristics and PTSD severity.

Results
The final sample consisted of 2,811 individuals with PTSD. Social support was not associated with the odds of receiving any type of PTSD treatment.

Conclusions
Among individuals in the general population with PTSD, perceived social support may not be related to PTSD treatment utilization. Other factors, such as sociodemographic characteristics and symptom severity, may be more important predictors of receipt of PTSD-specific treatment.

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http://psycnet.apa.org/psycinfo/2014-40588-001/

Performance Under Acute Stress: A Qualitative Study of Soldiers' Experiences of Hand-to-Hand Combat.

Jensen, Peter R.; Wrisberg, Craig A.

International Journal of Stress Management, Sep 29 , 2014

The chief aim of this study was to obtain in-depth descriptions of soldiers' first-person experiences of hand-to-hand combat during wartime operations using a stress and coping framework (Lazarus & Folkman, 1984). The results of phenomenological interviews revealed 4 major themes which, based on several participants' own words, were labeled "immediate threat," "flip the switch," "fast," and "adrenaline." It was concluded that the hand-to-hand combat experiences of these soldiers (a) imposed stressors from a variety of sources, (b) required coping responses comprising a swift and accurate interpretation of environmental conditions and rapid deployment of problem-focused strategies, and (c) evoked a constellation of powerful physiological and psychological reactions. Implications of this study for military personnel include the importance of "expecting the unexpected" in seemingly routine yet potentially hazardous combat operations, an emphasis on developing highly automated, problem-focused coping strategies and physical fighting skills, and the need for training in variable and unpredictable environments that demand rapid skill adaptations to context specific stressors. (PsycINFO Database Record (c) 2014 APA, all rights reserved)

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http://publications.amsus.org/doi/abs/10.7205/MILMED-D-14-00119

Identifying Classes of Veterans With Multiple Risk Factors.

JS Funderburk, A Kenneson, SA Maisto

Military Medicine
Volume 179 Issue 10, October 2014, pp. 1119-1126

As researchers examine the efficacy of interventions that simultaneously target more than 1 symptom, it is important to identify ways to help guide research and program development. This study used electronic medical record data to examine the covariation of multiple risk factors regularly assessed among primary care patients. It also examined the health care utilization of those patients identifying where the health care system came in contact with them to help identify the ideal locations these interventions may be most often used. We obtained data for six risk factors, as well as the number of primary care, mental health, and emergency department visits, from Veteran patients with a primary care visit. There were three main groups of primary care patients, identified using latent class analysis and regression. Although the smallest group, the "High Treatment Need" group, had an increased probability of screening positive for all four risk factors, the post-traumatic stress disorder screen was a significant discriminator of this group from the others. Results show that this group had the greatest number of encounters in all health care locations suggesting significant opportunities for intervention. However, future research is needed to examine the current interventions offered and potential avenues where risk factors may be addressed simultaneously.

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http://link.springer.com/article/10.1007/s11055-014-0026-z#page-1

Features of the Formation, Course, and Treatment of Alcohol Dependence in Patients with Post-Traumatic Stress Disorder.

T. V. Agibalova, T. R. Petrosyan, A. G. Kuznetsov, G. L. Gurevich, S. A. Shuvalov

Neuroscience and Behavioral Physiology
September 2014

Results obtained from studies of the clinical features and course of alcohol dependence in patients with post-traumatic stress disorder (PTSD), as compared with control patients with alcohol dependence without PTSD, were studied. The first of these groups showed greater progression of illness, constant alcohol abuse, high alcohol tolerance, rapid appearance of altered forms of alcohol intoxication, alcohol amnesia, withdrawal syndrome with a predominant psychopathological component, and more severe social and somatic consequences of alcohol abuse. However, better treatment results were obtained from 12 months of treatment with i.m. Vivitrol in patients with alcoholism combined with PTSD.

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http://online.liebertpub.com/doi/abs/10.1089/neu.2013.3284

Characterizing self-reported sleep disturbance following mild traumatic brain injury.

Prof. Karen Sullivan, Miss Shannon Edmed, Ms. Alicia Caitlin Allan, Ms. Lina J.E Karlsson, and Dr. Simon S Smith

Journal of Neurotrauma
Online Ahead of Editing: October 2, 2014

Sleep disturbance following mTBI is commonly reported as debilitating and persistent. However, the nature of this disturbance is poorly understood. This study sought to characterize sleep following mTBI compared to a control group. A cross-sectional matched case control design was used. Thirty-three individuals with recent mTBI (1-6 months ago) and 33 age, gender, and ethnicity matched controls completed established questionnaires of sleep quality, quantity, timing, and sleep-related daytime impairment. MTBI participants were compared to an independent sample of close-matched controls (CMCs; n = 33) to allow partial internal replication. Compared to controls, people with mTBI reported significantly greater sleep disturbance, more severe insomnia symptoms, a longer duration of wake after sleep onset (WASO), and greater sleep-related impairment (all medium to large effects, Cohen's d >0.5). No differences were found in sleep quantity, timing, sleep onset latency, sleep efficiency or daytime sleepiness. All findings except a measure of sleep timing (i.e., sleep midpoint) were replicated for CMCs. These results indicate a difference in the magnitude and nature of perceived sleep disturbance following mTBI compared with controls, where people with mTBI report poorer sleep quality and greater impairment from their sleep. The finding that other sleep parameters did not differ has implications for treatment. These findings should guide the provision of clearer advice to patients about the aspects of their sleep that may change following mTBI and which treatments may be suitable.

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http://www.tandfonline.com/doi/abs/10.1080/10437797.2014.947904

Social Workers' Observations of the Needs of the Total Military Community.

Jodi J. Frey, Kathryn S. Collins, Jennifer Pastoor & Linnea Linde

Journal of Social Work Education
Volume 50, Issue 4, 2014

Researchers surveyed licensed social workers from 5 Mid-Atlantic states to explore their perspectives on the current state of mental health and service delivery for military service workers, families, and contractors. Social workers identified needs in the following areas: mental

health, physical health and wellness, social and environmental, interpersonal and family, and military-specific needs. The majority of needs were most critical during the postdeployment stage. Education related to the observed needs was reported; social workers were most interested in learning about military culture and how to coordinate resources within the community to support the total military community. Suggestions for social work education and future research are discussed.

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http://journals.lww.com/journaladdictionmedicine/Abstract/publishahead/Group_Medication_Management_for.99733.aspx

Group Medication Management for Buprenorphine/Naloxone in Opioid-Dependent Veterans.

Berger, Reisel PharmD; Pulido, Carmen PhD; Lacro, Jonathan PharmD, BCPS, BCPP; Groban, Stephen MD; Robinson, Shannon MD

Journal of Addiction Medicine: Post Author Corrections: October 1, 2014

Objective:
Substance use disorders are a key concern among US veterans. Substance use disorder pharmacotherapies with support for effectiveness are limited. Buprenorphine/naloxone (Suboxone) is an effective opioid replacement treatment option for opioid use disorder when used as part of a comprehensive treatment program. In June 2011, the Veterans Affairs San Diego Healthcare System began using a group format to prescribe buprenorphine/naloxone. This study aimed at examining outcomes of retention rates and percentage opioid negative urine samples. Results were compared for veteran patients seen in group versus individual formats.

Methods:
This retrospective chart review included data from 32 patients who were prescribed buprenorphine/naloxone between a 3-year window (ie, January 1, 2010, and December 31, 2012).

Results:
Overall results were 46% retention in treatment after 1 year, and 94% of opioid urine samples were negative. More patients seen in group were retained in treatment at 1 year compared with those seen individually (69% vs 27%, respectively; $P < 0.03$).

Conclusions:
This study found that veterans prescribed buprenorphine/naloxone in a group setting as part of a drug and alcohol treatment program were retained in treatment longer than veterans prescribed this medication individually. Because of inherent limitations in the study design, no

causality can be determined; however, given the results found here, group medication management of buprenorphine/naloxone should be explored further. (C) 2014 American Society of Addiction Medicine

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http://onlinelibrary.wiley.com/doi/10.1002/dev.21259/full

Experiences in the military may impact dual-axis neuroendocrine processes in veterans.

Bobadilla, L., Asberg, K., Johnson, M. and Shirtcliff, E. A.

Developmental Psychobiology
Article first published online: 1 OCT 2014

Military stressors such as survival training can affect endocrine functioning in the short term, and combat has been associated with endocrine changes linked to psychopathology. However, studies with military samples examining whether there are individual differences in these changes as part of normal development, or as an adaptive mechanism in adulthood are lacking. This study examined whether exposure to combat in a sample of veterans was associated with differential endocrine activity to a laboratory frustration task. Results indicated that Army veterans demonstrated significant testosterone reactivity to frustration and negative coupling between cortisol and testosterone. Alternatively, Navy and Marine veterans demonstrated little testosterone reactivity to frustration and positive coupling between cortisol and testosterone. Positive cortisol-testosterone coupling was stronger among individuals who had more dangerous combat experiences. This latter pattern may better prepare individuals for stressful life experiences and supports the contention that adulthood stressors may calibrate endocrine systems. Results are explained in the context of the Adaptive Calibration Model (Ellis et al., 2012, Developmental Psychology, 48(3), 598–623) which proposes that exposure to key environmental dimensions during endocrinologically malleable life stages (e.g., puberty) can change stress responsivity, resulting in a faster life history trajectory (e.g., increased risk-taking and aggression). © 2014 Wiley Periodicals, Inc.

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http://www.jabfm.org/content/27/5/661.short

Characteristics of Men Who Perpetrate Intimate Partner Violence.

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J Am Board Fam Med September-October 2014 vol. 27 no. 5 661-668

Purpose:
Demographics, mental illness, substance use, and prior family violence are associated with perpetration of intimate partner violence (IPV) among male patient populations as well as court-based and community samples. However, few studies have identified health services use and physical symptoms associated with IPV perpetration among men. This study assesses the prevalence of IPV perpetration in a nationally representative sample of men and examines the associations of IPV perpetration with demographics, health services use, physical symptoms, mental illness, substance abuse, and prior family violence.

Methods:
Data from the 2001 to 2003 National Comorbidity Survey–Replication was used to assess the prevalence of IPV perpetration among adult men. Bivariate and multivariate logistic regression determined associations of IPV perpetration with demographics, health services use, physical symptoms, mental health diagnoses, substance abuse/dependence, and prior family violence.

Results:
The prevalence of male IPV perpetration is 19.2%. Physical symptoms from irritable bowel syndrome (odds ratio [OR] 2.61; 95% confidence interval [CI], 1.17–5.84) and insomnia (OR, 1.33; 95% CI, 1.04–1.71), as well as substance abuse/dependence (OR, 1.76; 95% CI, 1.09–2.85), were correlates of IPV perpetration in multivariate logistic regression analyses controlling for demographics and health services use. When prior family violence was added to the multivariate logistic regression model, only childhood family violence victimization (OR, 1.99; 95% CI, 1.21–3.28) and witnessing childhood family violence (OR, 2.02; 95% CI, 1.17–3.49) were associated with IPV perpetration.

Conclusions:
Nearly 1 in 5 men in the United States reported lifetime IPV perpetration toward their current intimate partner. Physical symptoms from irritable bowel syndrome and insomnia, substance use disorders, and prior family violence are associated with IPV perpetration by men. Understanding these associations may aid primary care physicians in identifying male patients who perpetrate IPV.

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http://onlinelibrary.wiley.com/doi/10.1002/jclp.22133/abstract

The Effect of Self Efficacy and Meaning in Life on Posttraumatic Stress Disorder and Depression Severity Among Veterans.

Laura Blackburn and Gina P. Owens

Journal of Clinical Psychology
Article first published online: 30 SEP 2014

Objective
The current study examined the relationships among combat exposure, presence of and search for meaning in life, general and social self-efficacy, and both posttraumatic stress disorder (PTSD) and depression symptom severity for a Veteran sample (N = 93).

Method
Participants completed an online survey comprising the Combat Exposure Scale, Meaning in Life Questionnaire, Self-Efficacy Scale, Depression subscale of the Depression, Anxiety, Stress Scales-21, and PTSD Checklist-Specific Stressor version. The majority of participants were male and Caucasian. Participants served in various service eras

Results
To determine factors that predicted PTSD and depression severity, separate hierarchical linear regressions were performed. In the final PTSD model, rank, combat exposure, and general self-efficacy were significant predictors, with officer rank, lower combat exposure, and higher general self-efficacy associated with lower PTSD severity. The interaction between combat exposure and general self-efficacy was also significant, with self-efficacy moderating the relationship between combat exposure and PTSD severity. For depression, rank, presence of meaning in life, and general self-efficacy were significant predictors in the model, with officer rank, higher presence of meaning in life, and general self-efficacy associated with lower depression severity.

Conclusion
A focus on strengthening self-efficacy may assist with lower levels of PTSD and depression symptomatology after combat trauma.

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http://onlinelibrary.wiley.com/doi/10.1002/j.2161-1882.2014.00062.x/abstract

Examining Treatment-Seeking College Students With and Without Military Experience and Trauma Histories.

Johnson, M. C., Graceffo, J. M., Hayes, J. A. and Locke, B. D.

Journal of College Counseling
Volume 17, Issue 3, pages 260–270, October 2014

An increasing number of veterans are returning from war, many with mental health problems. Some of these returning veterans will enroll in college, and it is important that campus counseling centers can meet the needs of this population. This study examined psychological distress among students with and without military experience. Results indicated that students with military experience showed elevated rates of hostility and family concerns. Clinical implications are discussed.

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http://journal.frontiersin.org/Journal/10.3389/fpsyt.2014.00146/abstract

Repeated exposure to conditioned fear stress increases anxiety and delays sleep recovery following exposure to an acute traumatic stressor.

Greenwood Benjamin N, Thompson Robert S, Opp Mark R, Fleshner Monika

Frontiers in Psychiatry
Received: 01 Aug 2014; Accepted: 30 Sep 2014

Repeated stressor exposure can sensitize physiological responses to novel stressors and facilitate the development of stress-related psychiatric disorders including anxiety. Disruptions in diurnal rhythms of sleep-wake behavior accompany stress-related psychiatric disorders and could contribute to their development. Complex stressors that include fear-eliciting stimuli can be a component of repeated stress experienced by humans, but whether exposure to repeated fear can prime the development of anxiety and sleep disturbances is unknown. In the current study, adult male F344 rats were exposed to either control conditions or repeated contextual fear conditioning for 22 days followed by exposure to either no, mild (10), or severe (100) acute uncontrollable tail shock stress. Exposure to acute stress produced anxiety-like behavior as measured by a reduction in juvenile social exploration and exaggerated shock-elicited freezing in a novel context. Prior exposure to repeated fear enhanced anxiety-like behavior as measured by shock-elicited freezing, but did not alter social exploratory behavior. The potentiation of anxiety produced by prior repeated fear was temporary; exaggerated fear was present 1 day but not 4 days following acute stress. Interestingly, exposure to acute stress reduced REM and NREM sleep during the hours immediately following acute stress. This initial reduction in sleep was followed by robust REM rebound and diurnal rhythm flattening of sleep / wake behavior. Prior repeated fear extended the acute stress-induced REM and NREM sleep loss, impaired REM rebound, and prolonged the flattening of the diurnal rhythm of NREM sleep following acute stressor exposure. These data suggest that impaired recovery of sleep / wake behavior following acute stress could contribute to the mechanisms by which a history of prior repeated stress increases vulnerability to subsequent novel stressors and stress-related disorders.

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http://link.springer.com/article/10.1007/s11055-014-0026-z

Features of the Formation, Course, and Treatment of Alcohol Dependence in Patients with Post-Traumatic Stress Disorder.

T. V. Agibalova, T. R. Petrosyan, A. G. Kuznetsov, G. L. Gurevich, S. A. Shuvalov

Neuroscience and Behavioral Physiology
November 2014, Volume 44, Issue 9, pp 1068-1072

Results obtained from studies of the clinical features and course of alcohol dependence in patients with post-traumatic stress disorder (PTSD), as compared with control patients with alcohol dependence without PTSD, were studied. The first of these groups showed greater progression of illness, constant alcohol abuse, high alcohol tolerance, rapid appearance of altered forms of alcohol intoxication, alcohol amnesia, withdrawal syndrome with a predominant psychopathological component, and more severe social and somatic consequences of alcohol abuse. However, better treatment results were obtained from 12 months of treatment with i.m. Vivitrol in patients with alcoholism combined with PTSD.

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http://onlinelibrary.wiley.com/doi/10.1111/sltb.12128/abstract

Helping Callers to the National Suicide Prevention Lifeline Who Are at Imminent Risk of Suicide: The Importance of Active Engagement, Active Rescue, and Collaboration Between Crisis and Emergency Services.

Draper, J., Murphy, G., Vega, E., Covington, D. W. and McKeon, R.

Suicide and Life-Threatening Behavior
Article first published online: 1 OCT 2014

In 2012, the SAMHSA-funded National Suicide Prevention Lifeline (Lifeline) completed implementation of the first national Policy for Helping Callers at Imminent Risk of Suicide across its network of crisis centers. The policy sought to: (1) provide a clear definition of imminent risk; (2) reflect the state of evidence, field experience, and promising practices related to reducing imminent risk through hotline interventions; and (3) provide a uniform policy and approach that could be applied across crisis center settings. The resulting policy established three essential principles: active engagement, active rescue, and collaboration between crisis and emergency services. A sample of the research and rationale that underpinned the development of this policy is provided here. In addition, policy implementation, challenges and successes, and implications for interventions to help Lifeline callers at imminent risk of suicide are detailed.

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http://journals.lww.com/ijebh/Abstract/2014/09000/Effectiveness_of_telephone_delivered_interventions.111.aspx

Effectiveness of telephone delivered interventions following suicide attempt: a systematic review.

Noh, D.

International Journal of Evidence-Based Healthcare:
September 2014

Background:
People who have attempted suicide are at high risk of further suicide attempts. Telephone-delivered interventions have merits of easily accessible and cost-effectiveness, and may be useful in follow-up management of suicide attempters.

Objective:
To assess the efficacy of telephone-delivered interventions for preventing suicide re-attempts in suicide attempters.

Methods:
We searched PubMed, EMBASE, Cochrane Library, and PsycINFO to April 2014. This review included randomized controlled trials comparing telephone-delivered interventions for preventing suicide re-attempts with usual care in suicide attempters. Studies which used phones for calling or messaging or as a part of their intervention were included. But studies which are unclear whether they used phones were excluded. Two independent reviewers appraised study quality and extracted data.

Results:
Out of 142 studies, 7 studies were included in this review. Studies had good methodological quality features, and were categorized as telephone contact (n = 3), crisis card which enable 24-hour crisis telephone consultation (n = 2), mixed (phone plus other interventions) (n = 2). Meta-analyses found that telephone contact did not significantly reduce proportion of repeaters (RR 0.78, 95% CI 0.58 to 1.07), deaths by suicide (RR 0.70, 95% CI 0.12 to 4.16), and losses to follow-up (RR 0.86, 95% CI 0.68 to 1.08) during the following year. One of the telephone contact studies proved effect in psychological symptom. Crisis card showed no significant effect on proportion of repeaters (RR 0.64, 95% CI 0.27 to 1.54). Although mixed interventions were not effective in repeated suicide attempt, one of them was effective in suicidal ideation and depression.

Discussion:
There was little evidence that telephone-delivered interventions can effect in suicide attempters. Most of included studies provided brief and a few times interventions, so more aggressive interventions are required.

Conclusion:
Telephone-delivered interventions may have a role in reducing suicidal ideation, depression, and psychological symptom, but there is a need for more research because current evidence is scarce. International Journal of Evidence-Based Healthcare (C) 2014 The Joanna Briggs Institute

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http://bjp.rcpsych.org/content/205/4/268.abstract

Psychotherapy for subclinical depression: meta-analysis.

Pim Cuijpers, Sander L. Koole, Annemiek van Dijke, Miquel Roca, Juan Li and Charles F. Reynolds III

The British Journal of Psychiatry (2014) 205: 268-274

Background
There is controversy about whether psychotherapies are effective in the treatment of subclinical depression, defined by clinically relevant depressive symptoms in the absence of a major depressive disorder.

Aims
To examine whether psychotherapies are effective in reducing depressive symptoms, reduce the risk of developing major depressive disorder and have comparable effects to psychological treatment of major depression.

Method
We conducted a meta-analysis of 18 studies comparing a psychological treatment of subclinical depression with a control group.

Results
The target groups, therapies and characteristics of the included studies differed considerably from each other, and the quality of many studies was not optimal. Psychotherapies did have a small to moderate effect on depressive symptoms against care as usual at the post-test assessment (g = 0.35, 95% CI 0.23-0.47; NNT = 5, 95% CI 4-8) and significantly reduced the incidence of major depressive episodes at 6 months (RR = 0.61) and possibly at 12 months (RR = 0.74). The effects were significantly smaller than those of psychotherapy for major depressive disorder and could be accounted for by non-specific effects of treatment.

Conclusions
Psychotherapy may be effective in the treatment of subclinical depression and reduce the incidence of major depression, but more high-quality research is needed.

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http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0107748

A Systematic Review of Economic Evaluations of Treatments for Borderline Personality Disorder.

Christian Brettschneider, Steffi Riedel-Heller, Hans-Helmut König

PLoS ONE 9(9): e107748. doi:10.1371/journal.pone.0107748

Purpose
The borderline personality disorder is a common mental disorder. It is frequently associated with various mental co-morbidities and a fundamental loss of functioning. The borderline personality disorder causes high costs to society. The aim of this study was to perform a systematic literature review of existing economic evaluations of treatments for borderline personality disorder.

Materials and Methods
We performed a systematic literature search in MEDLINE, EMBASE, PsycINFO and NHSEED for partial and full economic evaluations regarding borderline personality disorder. Reported cost data were inflated to the year 2012 and converted into US-$ using purchasing power parities to allow for comparability. Quality assessment of the studies was performed by means of the Consensus on Health Economic Criteria checklist, a checklist developed by a Delphi method in cooperation with 23 international experts.

Results
We identified 6 partial and 9 full economic evaluations. The methodical quality was moderate (fulfilled quality criteria: 79.2% [SD: 15.4%] in partial economic evaluations, 77.3% [SD: 8.5%] in full economic evaluations). Most evaluations analysed psychotherapeutic interventions. Although ambiguous, most evidence exists on dialectical-behavioural therapy. Cognitive behavioural therapy and schema-focused therapy are cost-saving. Evidence on other interventions is scarce.

Conclusion
The economic evidence is not sufficient to draw robust conclusions for all treatments. It is possible that some treatments are cost-effective. Most evidence exists on dialectical-behavioural therapy. Yet, it is ambiguous. Further research concerning the cost-effectiveness of treatments is necessary as well as the identification of relevant cost categories and the validation of effect measures.

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http://cpx.sagepub.com/content/early/2014/09/29/2167702614545480.abstract

ICD–11 Complex PTSD in U.S. National and Veteran Samples: Prevalence and Structural Associations With PTSD.

Erika J. Wolf, Mark W. Miller, Dean Kilpatrick, Heidi S. Resnick, Christal L. Badour, Brian P. Marx, Terence M. Keane, Raymond C. Rosen, and Matthew J. Friedman

Clinical Psychological Science 2167702614545480, first published on October 2, 2014
doi:10.1177/2167702614545480

The 11th edition of the International Classification of Diseases (ICD–11) is under development, and current proposals include major changes to trauma-related psychiatric diagnoses, including a heavily restricted definition of posttraumatic stress disorder (PTSD) and the addition of complex PTSD (CPTSD). We aimed to test the postulates of CPTSD in samples of 2,695 community participants and 323 trauma-exposed military veterans. CPTSD prevalence estimates were 0.6% and 13% in the community and veteran samples, respectively; one quarter to one half of those with PTSD met criteria for CPTSD. There were no differences in trauma exposure across diagnoses. A factor mixture model with two latent dimensional variables and four latent classes provided the best fit in both samples: Classes differed by their level of symptom severity but did not differ as a function of the proposed PTSD versus CPTSD diagnoses. These findings should raise concerns about the distinctions between CPTSD and PTSD proposed for ICD–11.

Links of Interest

Report: Some causes of suicide in military need more study
http://www.usatoday.com/story/nation/2014/09/22/suicide-military-rand-research-army-soldiers/15876713/

Criminal or victim? Communities weigh how to deal with battle-scarred soldiers who do wrong after coming home
http://www.washingtonpost.com/sf/national/2014/09/20/criminal-or-victim/

Memo To Employers: Veterans Aren't PTSD Basketcases; They're Disciplined And Committed
http://www.forbes.com/sites/realspin/2014/09/29/memo-to-employers-veterans-arent-ptsd-basketcases-theyre-disciplined-and-committed/

Drone operators return to combat amid growing research they can suffer emotional strain, PTSD
http://www.startribune.com/lifestyle/health/277403011.html

Resource of the Week: National Library of Medicine -- Gallery of Mobile Apps and Sites

This collection of apps and mobile websites from the National Library of Medicine (NLM) offers something for everyone. If you use the PubMed database, you might be interested in trying the mobile interface on your phone or tablet. Or you can install the PubMed app, available for both iOS and Android devices.

The mobile version of NLM's Drug Information Portal provides access to information on more than 31,000 drugs via your handheld device. DailyMed offers information about "marketed drugs, including FDA labels (package inserts)."

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