



## CDP Research Update -- May 9, 2013

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[http://www.sapr.mil/media/pdf/reports/FY12\\_DoD\\_SAPRO\\_Annual\\_Report\\_on\\_Sexual\\_Assault-VOLUME\\_ONE.pdf](http://www.sapr.mil/media/pdf/reports/FY12_DoD_SAPRO_Annual_Report_on_Sexual_Assault-VOLUME_ONE.pdf)

### **Department of Defense Annual Report on Sexual Assault in the Military 2012**

In FY12, the Military Services received a total of 3,374 reports of sexual assault involving Service members as either victims or subjects, which represents a 6 percent increase from the 3,192 reports made in FY11.

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[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6217a1.htm?s\\_cid=mm6217a1\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6217a1.htm?s_cid=mm6217a1_w)

### **Suicide Among Adults Aged 35–64 Years — United States, 1999–2010.**

Morbidity and Mortality Weekly Report

Centers for Disease Control and Prevention

May 3, 2013 / 62(17);321-325

Suicide is an increasing public health concern. In 2009, the number of deaths from suicide surpassed the number of deaths from motor vehicle crashes in the United States (1). Traditionally, suicide prevention efforts have been focused mostly on youths and older adults, but recent evidence suggests that there have been substantial increases in suicide rates among middle-aged adults in the United States (2). To investigate trends in suicide rates among adults aged 35–64 years over the last decade, CDC analyzed National Vital Statistics System (NVSS) mortality data from 1999–2010. Trends in suicide rates were examined by sex, age group, race/ethnicity, state and region of residence, and mechanism of suicide. The results of this analysis indicated that the annual, age-adjusted suicide rate among persons aged 35–64 years increased 28.4%, from 13.7 per 100,000 population in 1999 to 17.6 in 2010. Among racial/ethnic populations, the greatest increases were observed among American Indian/Alaska Natives (AI/ANs) (65.2%, from 11.2 to 18.5) and whites (40.4%, from 15.9 to 22.3). By mechanism, the greatest increase was observed for use of suffocation (81.3%, from 2.3 to 4.1), followed by poisoning (24.4%, from 3.0 to 3.8) and firearms (14.4%, from 7.2 to 8.3). The findings underscore the need for suicide preventive measures directed toward middle-aged populations.

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<http://guilfordjournals.com/doi/abs/10.1521/psyc.2013.76.2.97>

**Suicide Among Soldiers: A Review of Psychosocial Risk and Protective Factors.**

Matthew K. Nock, Charlene A. Deming, Carol S. Fullerton, Stephen E. Gilman, Matthew Goldenberg, Ronald C. Kessler, James E. McCarroll, Katie A. McLaughlin, Christopher Peterson, Michael Schoenbaum, Barbara Stanley, and Robert J. Ursano

Psychiatry: Interpersonal and Biological Processes: Vol. 76, No. 2, pp. 97-125.

Suicide is difficult to predict and prevent and remains a leading cause of death worldwide. Although soldiers historically have had a suicide rate well below that of the general population, the suicide rate among members of the U.S. Army has increased markedly over the past several years and now exceeds that of the general population. This paper reviews psychosocial factors known to be associated with the increased risk of suicidal behavior in general and describes how some of these factors may be especially important in understanding suicide among soldiers. Moving forward, the prevention of suicide requires additional research aimed at: (a) better describing when, where, and among whom suicidal behavior occurs, (b) using exploratory studies to discover new risk and protective factors, (c) developing new methods of predicting suicidal behavior that synthesize information about modifiable risk and protective factors from multiple domains, and (d) understanding the mechanisms and pathways through which suicidal behavior develops. Although the scope and severity of this problem is daunting, the increasing attention and dedication to this issue by the Armed Forces, scientists, and society provide hope for our ability to better predict and prevent these tragic outcomes in the future.

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<http://www.hqlo.com/content/pdf/1477-7525-11-73.pdf>

**What pre-deployment and early post-deployment factors predict health function after combat deployment?: a prospective longitudinal study of Operation Enduring Freedom (OEF)/Operation Iraqi Freedom (OIF) soldiers.**

Lisa M McAndrew (Lisa.mcandrew@va.gov) Shou-En Lu (lus2@umdnj.edu) Grace W Yan (Weiyin.yan@va.gov) Charles Engel (Charles.engel@usuhs.edu) Karen S Quigley (k.quigley@va.gov)

Health and Quality of Life Outcomes

2013, 11:73 doi:10.1186/1477-7525-11-73

Background

Physical and mental function are strong indicators of disability and mortality. OEF/OIF Veterans returning from deployment have been found to have poorer function than soldiers who have not deployed; however the reasons for this are unknown.

## Methods

A prospective cohort of 790 soldiers was assessed both pre- and immediately after deployment to determine predictors of physical and mental function after war.

## Results

On average, OEF/OIF Veterans showed significant declines in both physical ( $t=6.65$ ,  $p<.0001$ ) and mental function ( $t=7.11$ ,  $p<.0001$ ). After controlling for pre-deployment function, poorer physical function after deployment was associated with older age, more physical symptoms, blunted systolic blood pressure reactivity and being injured. After controlling for pre-deployment function, poorer mental function after deployment was associated with younger age, lower social desirability, lower social support, greater physical symptoms and greater PTSD symptoms.

## Conclusions

Combat deployment was associated with an immediate decline in both mental and physical function. The relationship of combat deployment to function is complex and influenced by demographic, psychosocial, physiological and experiential factors. Social support and physical symptoms emerged as potentially modifiable factors.

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<http://onlinelibrary.wiley.com/doi/10.1002/jclp.21970/abstract>

## **Efficacy of a Cognitive-Behavioral Treatment for Insomnia and Nightmares in Afghanistan and Iraq Veterans With PTSD.**

Margolies, S. O., Rybarczyk, B., Vrana, S. R., Leszczyszyn, D. J. and Lynch, J.

Journal of Clinical Psychology

Article first published online: 29 APR 2013

### Objective

Sleep disturbances are a core and salient feature of posttraumatic stress disorder (PTSD). Pilot studies have indicated that combined cognitive-behavioral therapy for insomnia (CBT-I) and imagery rehearsal therapy (IRT) for nightmares improves sleep as well as PTSD symptoms.

### Method

The present study randomized 40 combat veterans (mean age 37.7 years; 90% male and 60% African American) who served in Afghanistan and/or Iraq (Operation Enduring Freedom [OEF] / Operation Iraqi Freedom [OIF]) to 4 sessions of CBT-I with adjunctive IRT or a waitlist control group. Two thirds of participants had nightmares at least once per week and received the optional IRT module.

### Results

At posttreatment, veterans who participated in CBT-I/IRT reported improved subjectively and

objectively measured sleep, a reduction in PTSD symptom severity and PTSD-related nighttime symptoms, and a reduction in depression and distressed mood compared to the waitlist control group.

#### Conclusion

The findings from this first controlled study with OEF/OIF veterans suggest that CBT-I combined with adjunctive IRT may hold promise for reducing both insomnia and PTSD symptoms. Given the fact that only half of the patients with nightmares fully implemented the brief IRT protocol, future studies should determine if this supplement adds differential efficacy to CBT-I alone.

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<http://www.ncbi.nlm.nih.gov/pubmed/23640544>

J Head Trauma Rehabil. 2013 May 1. [Epub ahead of print]

#### **Cognitive-Behavioral Prevention of Postconcussion Syndrome in At-Risk Patients: A Pilot Randomized Controlled Trial.**

Silverberg ND, Hallam BJ, Rose A, Underwood H, Whitfield K, Thornton AE, Whittal ML.

Source: GF Strong Rehab Centre, Vancouver (Drs Silverberg and Hallam and Ms Rose); Divisions of Physical Medicine & Rehabilitation (Drs Silverberg and Underwood) and Neurology (Drs Silverberg and Hallam), Faculty of Medicine, and Department of Psychiatry (Dr Whittal), University of British Columbia, Vancouver; and Human Neuropsychology Laboratory, Simon Fraser University, Burnaby (Mr Whitfield and Dr Thornton), British Columbia, Canada.

#### Abstract

##### OBJECTIVE:

To examine the tolerability and estimate the treatment effect of cognitive-behavioral therapy (CBT) delivered soon after mild traumatic brain injury to patients at risk for chronic postconcussion syndrome (PCS).

##### SETTING:

Tertiary rehabilitation center.

##### PARTICIPANTS:

Twenty-eight patients with uncomplicated mild traumatic brain injury, determined to be at risk for chronic PCS based on a published algorithm that incorporates subacute postconcussion symptoms and maladaptive illness beliefs (recovery expectations and perceived consequences). They were enrolled within 6 weeks postinjury.

##### DESIGN:

Open-label, parallel-group, randomized controlled trial, with masked outcome assessment 3 months after enrolment. Interventions were (1) treatment as usual (education, reassurance, and symptom

management strategies) from an occupational therapist, or (2) treatment as usual plus CBT delivered by a psychologist.

MAIN MEASURES: |

Rivermead Postconcussion Symptoms Questionnaire.

RESULTS:

Four participants (2:2) withdrew. Treatment credibility and satisfaction ratings were high in the CBT group. Treatment effect sizes were moderate for postconcussion symptoms (Cohen  $d = 0.74$ ) and moderate-large for most secondary outcome measures (Cohen  $d = 0.62-1.61$ ). Fewer participants receiving CBT had a diagnosis of PCS at follow-up (54% vs 91%,  $P < .05$ ).

CONCLUSION:

Our preliminary data suggest that CBT delivered soon after mild traumatic brain injury is well tolerated and may facilitate recovery in patients who are at risk for chronic PCS. A definitive clinical trial is warranted.

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<http://www.ncbi.nlm.nih.gov/pubmed/23640539>

J Head Trauma Rehabil. 2013 May 1. [Epub ahead of print]

**White Matter Integrity in Veterans With Mild Traumatic Brain Injury: Associations With Executive Function and Loss of Consciousness.**

Sorg SF, Delano-Wood L, Luc N, Schiehser DM, Hanson KL, Nation DA, Lanni E, Jak AJ, Lu K, Meloy MJ, Frank LR, Lohr JB, Bondi MW.

Source: San Diego State University/University of California San Diego Joint Doctoral Program in Clinical Psychology (Mr Sorg); Veterans Affairs San Diego Healthcare System (VASDHS) (Drs Delano-Wood, Schiehser, Hanson, Nation, Jak, Meloy, Frank, Lohr, and Bondi and Mr Luc and Mss Lanni); Center of Excellence for Stress and Mental Health, VASDHS (Drs Delano-Wood, Schiehser, Hanson, Jak, Frank, Lohr, and Bondi); and Departments of Psychiatry (Drs Delano-Wood, Schiehser, Hanson, Jak, Meloy, Lohr, and Bondi) and Radiology (Drs Lu and Frank), School of Medicine, University of California, San Diego.

Abstract

OBJECTIVE:

We investigated using diffusion tensor imaging (DTI) the association between white matter integrity and executive function (EF) performance in postacute mild traumatic brain injury (mTBI). In addition, we examined whether injury severity, as measured by loss of consciousness (LOC) versus alterations in consciousness (AOC), is related to white matter microstructural alterations and neuropsychological outcome.

#### PARTICIPANTS:

Thirty Iraq and Afghanistan War era veterans with a history of mTBI and 15 healthy veteran control participants. RESULTS:: There were no significant overall group differences between control and mTBI participants on DTI measures. However, a subgroup of mTBI participants with EF decrements (n = 13) demonstrated significantly decreased fractional anisotropy of prefrontal white matter, corpus callosum, and cingulum bundle structures compared with mTBI participants without EF decrements (n = 17) and control participants. Participants having mTBI with LOC were more likely to evidence reduced EF performances and disrupted ventral prefrontal white matter integrity when compared with either mTBI participants without LOC or control participants.

#### CONCLUSIONS:

Findings suggest that altered white matter integrity contributes to reduced EF in subgroups of veterans with a history of mTBI and that LOC may be a risk factor for reduced EF as well as associated changes to ventral prefrontal white matter.

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<http://www.ncbi.nlm.nih.gov/pubmed/23636987>

Curr Psychiatry Rep. 2013 Jun;15(6):364. doi: 10.1007/s11920-013-0364-5.

#### **Comorbid sleep disorders in neuropsychiatric disorders across the life cycle.**

Spiegelhalder K, Regen W, Nanovska S, Baglioni C, Riemann D.

Source: Department of Psychiatry and Psychotherapy, University of Freiburg Medical Center, Hauptstraße 5, 79104, Freiburg, Germany, Kai.Spiegelhalder@uniklinik-freiburg.de.

#### Abstract

The association between psychopathology and poor sleep has long been recognized. The current review focuses on the association between the most prevalent sleep disorders (insomnia, sleep-related breathing disorders and restless legs syndrome) and four major psychiatric disorders: alcohol dependence, schizophrenia, depression and anxiety disorders. Decreased total sleep time and increased sleep onset latency as measured by polysomnography as well as an increase of the prevalence of insomnia has been reported in all of these psychiatric disorders. Furthermore, sleep disturbance is a risk factor for their development. Cognitive-behavioral therapy for insomnia has been shown to have a positive impact on both sleep and symptoms of depression and anxiety. Whether adequate treatment of sleep disorders can prevent the incidence of psychiatric disorders, remains to be investigated.

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<http://www.ncbi.nlm.nih.gov/pubmed/23638449>

Ann Clin Psychiatry. 2013 May 1;25(2):E8-E17. [Epub ahead of print]



## **A prospective study of the onset of PTSD symptoms in the first month after trauma exposure.**

Whitman JB, North CS, Downs DL, Spitznagel EL.

Source: Department of Psychiatry/Division of Crisis and Disaster Psychiatry, University of Texas Southwestern Medical Center, Dallas, TX, USA. E-mail: Jeannie.Whitman@UTSouthwestern.edu.

Abstract

### **BACKGROUND:**

The course of posttraumatic stress disorder (PTSD) symptoms in the month after trauma exposure has not been determined adequately. Symptom group C (avoidance/numbing) has been identified retrospectively as a marker for PTSD, but prospective studies are needed to determine whether these symptoms can provide substantially earlier identification of those who will have PTSD 1 month after trauma exposure.

### **METHODS:**

We evaluated 42 patients hospitalized for traumatic injuries over the first post-injury month to track development of posttraumatic symptoms.

### **RESULTS:**

Symptoms emerged rapidly, with group B (intrusion) and group D (hyperarousal) symptoms occurring earlier than group C symptoms. At 1 week, group C criteria accurately predicted who would develop PTSD by 1 month, and by 2 weeks, group C criteria also predicted who would not develop PTSD by 1 month.

### **CONCLUSIONS:**

The findings, if replicated, may permit earlier identification of PTSD and more timely, appropriate treatment.

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<http://www.ncbi.nlm.nih.gov/pubmed/23636925>

## **Treatment of Posttraumatic Stress Disorder Reduces Suicidal Ideation.**

Depress Anxiety. 2013 May 1. doi: 10.1002/da.22117. [Epub ahead of print]

Gradus JL, Suvak MK, Wisco BE, Marx BP, Resick PA.

Source: National Center for PTSD, VA Boston Healthcare System, Boston, Massachusetts; Department of Psychiatry, Boston University School of Medicine, Boston, Massachusetts; Department of Epidemiology, Boston University School of Public Health, Boston, Massachusetts.

## Abstract

### BACKGROUND:

Suicide is a significant public health problem. Although various studies have found evidence of posttraumatic stress disorder (PTSD) as a risk factor for suicidal behaviors, no study has examined whether or not PTSD treatment decreases suicidal thoughts. This study aims to fill this gap in the literature by examining changes in suicidal ideation over the course of a randomized clinical trial, which compared two widely used treatments for PTSD-cognitive processing therapy (CPT) and prolonged exposure (PE).

### METHODS:

Data from 163 trial participants over five time points (pre- and posttreatment, 3 and 9 months posttreatment, and 5-10 years posttreatment) were examined using multilevel growth curve analyses to determine if reductions in PTSD symptoms during treatment were associated with reductions in suicidal ideation. Major depression diagnosis and hopelessness were controlled.

### RESULTS:

Suicidal ideation decreased sharply during treatment with continued, but more subtle decreases, during the follow-up period. These decreases were associated with decreases in PTSD symptoms over the course of treatment. These associations were not accounted for by depression diagnoses at the start of the study or changes in hopelessness over the course of treatment.

### CONCLUSIONS:

Two widely used, effective treatments for PTSD reduce suicidal ideation. CPT exhibited a larger influence on suicidal ideation than PE, although the magnitude of the difference was small in size. Inclusion of PTSD screening and treatment could enhance suicide prevention efforts.

Published 2013. This article is a U.S. Government work and is in the public domain in the USA.

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<http://www.ncbi.nlm.nih.gov/pubmed/23636815>

J Trauma Stress. 2013 May 1. doi: 10.1002/jts.21805. [Epub ahead of print]

### **A Dyadic Analysis of the Influence of Trauma Exposure and Posttraumatic Stress Disorder Severity on Intimate Partner Aggression.**

Wolf EJ, Harrington KM, Reardon AF, Castillo D, Taft CT, Miller MW.

Source: National Center for PTSD at VA Boston Healthcare System, Boston, Massachusetts, USA;  
Department of Psychiatry, Boston University School of Medicine, Boston, Massachusetts, USA.

## Abstract

This study used structural equation modeling to evaluate a mediation model of the relationship between trauma exposure, posttraumatic stress disorder (PTSD) symptoms, and perpetration of intimate partner physical and psychological aggression in trauma-exposed veterans and their cohabitating spouses (n = 286 couples; 88% male veteran and female spouse, 80.8% White, non-Hispanic). Dyadic data analyses were used to simultaneously evaluate actor and partner effects using the actor-partner interdependence model (Kashy & Kenny, 2000). The primary hypothesis was that PTSD would mediate the association between trauma exposure and intimate partner physical and psychological aggression with these effects evident both within and across members of a couple (i.e., actor and partner effects). The best-fitting model included (a) equivalent actor and partner direct effects of trauma on veterans' acts of psychological aggression ( $\beta = .17$  to  $.20$ ,  $p = .001$ ), and (b) equivalent actor and partner indirect effects via PTSD on veterans' acts of physical aggression ( $\beta = .08$  to  $.10$ ,  $p < .001$ ). There were no direct or indirect effects predicting the spouses' aggression. Results suggest it is important to consider the trauma histories and possible presence of PTSD in both partners as this may be a point of intervention when treating distressed couples.

Published 2013. This article is a US Government work and is in the public domain in the USA.

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<http://www.ncbi.nlm.nih.gov/pubmed/22545823>

Psychol Serv. 2012 Nov;9(4):390-403. doi: 10.1037/a0028178. Epub 2012 Apr 30.

### **Soldiers' perceptions of resilience training and postdeployment adjustment: validation of a measure of resilience training content and training process.**

Foran HM, Adler AB, McGurk D, Bliese PD.

Source: Walter Reed Army Institute of Research, Heidelberg, Germany.  
heather.m.foran.ctr@us.army.mil

## Abstract

Group randomized trials of a resilience training program (formerly Battlemind training) demonstrated effectiveness of the program in reducing postdeployment adjustment problems among military personnel. These results are promising, but program evaluation is a dynamic, multifaceted task, and many questions remain. This article is designed to address one component of resilience training program evaluation: soldiers' perceptions of the training. Specifically, a self-report measure assessing attitudes and satisfaction in domains theorized to be important to resilience training was developed. This measure was administered to 782 soldiers who participated in a 1-hr resilience training session at 4-months postdeployment. Several mental health outcomes (e.g., alcohol problems, posttraumatic stress symptoms, physical health symptoms, unit morale) were assessed before training and 6 months later. Structural validity, internal consistency, concurrent validity, and predictive validity of the measure were

examined. Analyses identified two factors reflecting attitudes toward Training Content and Training Process. The factors demonstrated good internal consistency, and both correlated with overall training satisfaction and mental health-related attitudes. In addition, both factors predicted significant positive change in a set of mental health outcomes at 6-month follow-up. Implications for postdeployment resilience training are discussed.

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<http://www.ncbi.nlm.nih.gov/pubmed/23631508>

Brain Inj. 2013 Apr 30. [Epub ahead of print]

**Psychotherapeutic treatment of survivors of traumatic brain injury: Review of the literature and special considerations.**

Block CK, West SE.

Source: Department of Psychology, Division of Medical-Clinical Psychology, University of Alabama at Birmingham , Birmingham, AL , USA and.

**Abstract**

**Primary objective:**

To provide an overview of useful clinical information for healthcare providers involved in traumatic brain injury (TBI) rehabilitation, including current methods used with survivors of TBI, therapeutic considerations in light of this population's cognitive, emotional and social difficulties and issues regarding the therapeutic working alliance from both survivor and provider perspectives. Research design: Non-systematic clinical review.

**Method:**

The literature was intended to be comprehensive to reflect both past and present contributions to the field. To that end, citations were included from seminal and current texts as well as relevant original and review articles from 1985-2012 in PubMed and PubMedCentral online research databases.

**Main outcomes and results:**

This article highlights the usefulness of psychotherapy for treatment of psychiatric symptoms in the TBI population, reviews available modalities and offers considerations and suggestions to facilitate and improve treatment.

**Conclusions:**

Although challenging and perhaps frustrating at times, psychotherapy with this population can be validly attempted and ultimately very rewarding for both the survivor and therapist. Future research should seek to perform controlled studies to examine therapeutic efficacy and compare gains by injury severity in the hopes of creating best practice guidelines for practitioners.

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<http://www.ncbi.nlm.nih.gov/pubmed/23631454>

Am J Health Promot. 2013 Apr 30. [Epub ahead of print]

## **What Do Veterans Service Organizations' Web Sites Say About Tobacco Control?**

Poston WS, Haddock CK, Jahnke SA, Jitnarin N.

Source: Walker S. C. Poston, PhD, MPH; Christopher K. Haddock, PhD; Sara A. Jahnke, PhD; and Nattinee Jitnarin, MSc, PhD, are with the Institute for Biobehavioral Health Research, National Development and Research Institutes, Inc., Leawood, Kansas.

### Abstract

#### Purpose

Little is known about veterans service organizations (VSOs) and their perspectives on veterans smoking or military tobacco control. Veterans have high smoking rates and many started smoking in the military, where a culture promoting use exists.

#### Design

A qualitative content analysis of VSO Web sites was conducted to classify health topics and identify tobacco-related information. Setting . Web sites were coded by trained raters from January to June of 2011. Data were entered, cleaned, and analyzed from July 2011 to January 2012. Subjects . Twenty-four active VSO Web sites meeting inclusion criteria were rated independently.

#### Measures

A comprehensive form was used to code 15 veteran-relevant health topics across multiple content areas/domains within the Web sites. Raters achieved 94.5% interrater agreement over nearly 5000 data points.

#### Analysis

Health content was coded as present or not within multiple VSO Web site areas/domains. The frequency of coverage by each VSO Web site and the number of VSO Web sites that mentioned a health topic in different Web site areas/domains were tabulated.

#### Results

A total of 277 health topics were addressed, with the top five being insurance/Tricare/Veterans Administration issues (28.2%), posttraumatic stress disorder (PTSD; 15.5%), disability/amputation/wounds (13.4%), Agent Orange (10.5%), and traumatic brain injury (9.0%). Tobacco was mentioned four times (1.4%) across all 24 VSO Web sites, and smoking cessation was never addressed.

#### Conclusion

VSO Web sites provide little information on tobacco-related topics and none offered information about smoking cessation. Given the high rates of tobacco use among veterans and active-duty service

members, and the interaction between smoking and PTSD symptoms and treatment outcomes, VSOs should consider making tobacco control and smoking cessation higher-priority health issues on their Web sites.

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<http://www.ncbi.nlm.nih.gov/pubmed/23633445>

### **Sudden Gains in Prolonged Exposure and Sertraline for Chronic PTSD.**

Depress Anxiety. 2013 Apr 30. doi: 10.1002/da.22119. [Epub ahead of print]

Jun JJ, Zoellner LA, Feeny NC.

Source: Department of Psychology, University of Washington, Seattle, Washington.

#### Abstract

##### BACKGROUND:

Sudden gains are significant, rapid improvements in symptoms, larger than typical between-session symptom reduction.[8] Sudden gains in a large sample of individuals with posttraumatic stress disorder (PTSD) have not been studied, and only one study has looked at it in pharmacotherapy, but not in PTSD. In the present study, we examined the occurrence of sudden gains in psychotherapy, specifically prolonged exposure (PE), and pharmacotherapy, specifically sertraline, for chronic PTSD.

##### METHOD:

Sudden gains in PTSD symptoms (PTSD symptom scale self-report[25] ) were assessed in 200 individuals with PTSD during 10 weeks of PE or sertraline.

##### RESULTS:

Individuals in both PE (42.2%) and sertraline (31%) exhibited sudden gains. Individuals in PE made more gains toward the end of treatment (7.2%) than sertraline (2%, OR = 3.82). However, individuals in sertraline made larger gains during early treatment (M = 18.35, SD = 8.15) than PE (M = 12.53, SD = 5.16, d = .85). Notably, those on sertraline were more likely to exhibit a reversal of sudden gains than those in PE (OR = .23). Pointing to clinical significance, the presence of a sudden gain was associated with better reduction in symptoms from pre- to posttreatment ( $\beta = -.49$ ).

##### CONCLUSIONS:

Individuals in both PE and sertraline experienced gains, though sertraline was associated with earlier large but reversible gains, and PE was associated with later gains. This differential pattern of discontinuous change highlights potential differential mechanism for these therapies and marks important transition points for further detailed analyses of change mechanisms.

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<http://www.ncbi.nlm.nih.gov/pubmed/23633757>

Sleep. 2013 May 1;36(5):739-49. doi: 10.5665/sleep.2640.

**A randomized controlled trial of problem-solving therapy compared to cognitive therapy for the treatment of insomnia in adults.**

Pech M, O'Kearney R.

Source: Research School of Psychology, The Australian National University, Canberra, Australian Capital Territory, Australia.

Abstract

STUDY OBJECTIVES:

To compare the efficacy of problem-solving therapy (PST) combined with behavioral sleep strategies to standard cognitive therapy (CT) combined with behavioral sleep strategies in the treatment of insomnia.

DESIGN:

A six-week randomized controlled trial with one month follow-up.

SETTING:

The Australian National University Psychology Clinic, Canberra, Australia.

PARTICIPANTS:

Forty-seven adults aged 18-60 years recruited from the community meeting the Research Diagnostic Criteria for insomnia.

INTERVENTIONS:

Participants received 6 weeks of treatment including one group session (sleep education and hygiene, stimulus control instructions and progressive muscle relaxation) followed by 5 weeks of individual treatment of PST or CT.

MEASUREMENTS AND RESULTS:

Primary outcomes included sleep efficiency (SE) from sleep diaries, the Insomnia Severity Index (ISI), and the Pittsburgh Sleep Quality Index (PSQI). Secondary measures assessed dysfunctional sleep beliefs, problem-solving skills and orientations, and worry. Both treatments produced significant post therapy improvements in sleep which were maintained at 1 month follow-up (on SE Cohen  $d = 1.42$ , 95% CI 1.02-1.87 for PST;  $d = 1.26$ , 95% CI 0.81-1.65 for CT; on ISI  $d = 1.46$ , 95% CI 1.03-1.88 for PST;  $d = 1.95$ , 95% CI 0.52-2.38 for CT; for PSQI  $d = 0.97$ , 95% CI 0.55-1.40 for PST and  $d = 1.34$ , 95% CI 0.90-1.79 for the CT). There were no differences in PST and CT in the size or rate of improvement in sleep although CT produced a significant faster rate of decline in negative beliefs about sleep than PST and there was a trend ( $P = 0.08$ ) for PST to produce a faster rate of improvement in negative problem orientation than CT.

## CONCLUSIONS:

The results provide preliminary support for problem solving treatment as an equally efficacious alternative component to cognitive therapy in psychological interventions for insomnia. CITATION: Pech M; O'Kearney R. A randomized controlled trial of problem-solving therapy compared to cognitive therapy for the treatment of insomnia in adults. SLEEP 2013;36(5):739-749.

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<http://www.ncbi.nlm.nih.gov/pubmed/23633756>

Sleep. 2013 May 1;36(5):731-7. doi: 10.5665/sleep.2638.

## **Insomnia Does Not Appear to be Associated With Substantial Structural Brain Changes.**

Spiegelhalder K, Regen W, Baglioni C, Klöppel S, Abdulkadir A, Hennig J, Nissen C, Riemann D, Feige B.

Source: Department of Psychiatry and Psychotherapy, University Medical Center Freiburg, Germany.

## Abstract

### STUDY OBJECTIVES:

Sleep has been demonstrated to significantly modulate brain plasticity and the manifestation of mental disorders. However, previous studies on the effect of disrupted sleep on brain structure have reported inconsistent results. The goal of the current study was to investigate brain morphometry in a well-characterized large sample of patients with primary insomnia (PI) in comparison with good sleeper controls.

### DESIGN:

Automated parcellation and pattern recognition approaches were supplemented by voxelwise analyses of gray and white matter volumes to analyze magnetic resonance images. All analyses included age, sex, and total intracranial volume as covariates.

### SETTING:

Department of Psychiatry and Psychotherapy of the University of Freiburg Medical Center.

### PARTICIPANTS:

There were 28 patients with PI (10 males; 18 females; age  $43.7 \pm 14.2$  y) and 38 healthy, good sleepers (17 males; 21 females; age  $39.6 \pm 8.9$  y).

### INTERVENTIONS:

N/A.

### RESULTS:

No significant between-group differences were observed in any of the investigated brain morphometry variables.



## CONCLUSIONS:

Altered brain function in insomnia does not appear to have a substantial effect on brain morphometry on a macroscopic level. CITATION: Spiegelhalder K; Regen W; Baglioni C; Klöppel S; Abdulkadir A; Hennig J; Nissen C; Riemann D; Feige B. Insomnia does not appear to be associated with substantial structural brain changes. SLEEP 2013;36(5):731-737.

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<http://www.ncbi.nlm.nih.gov/pubmed/23633749>

Sleep. 2013 May 1;36(5):671-9. doi: 10.5665/sleep.2624.

## **Differentiating nonrestorative sleep from nocturnal insomnia symptoms: demographic, clinical, inflammatory, and functional correlates.**

Zhang J, Lamers F, Hickie IB, He JP, Feig E, Merikangas KR.

Source: Genetic Epidemiology Branch, Intramural Research Program, National Institute of Mental Health, National Institutes of Health, Department of Health and Human Services, Bethesda, MD ; Department of Psychiatry, The Chinese University of Hong Kong, Shatin, Hong Kong, SAR, China.

## Abstract

### STUDY OBJECTIVES:

Recent studies have suggested that nonrestorative sleep (NRS) symptoms may be distinct from nocturnal insomnia symptoms (NIS). However, there is limited information on the demographic, medical, and biologic correlates of NRS independent from NIS in the general population. This report presents the sociodemographic correlates, patterns of comorbidity with other sleep and physical disorders, C-reactive protein (CRP) levels, and general productivity associated with NIS and NRS in a nationally representative sample of US adults.

### DESIGN:

National Health and Nutrition Examination Survey (NHANES).

### SETTING:

The 2005-2008 surveys of the general population in the United States.

### PARTICIPANTS:

There were 10,908 individuals (20 years or older).

### INTERVENTIONS:

N/A.

### MEASUREMENTS AND RESULTS:

Respondents were classified by the presence or absence of NIS and NRS. Compared with those without insomnia symptoms, respondents with NIS were older and had lower family income and educational

levels than those with NRS. In addition, there was a significant association between NIS and cardiovascular disease, whereas NRS was associated with other primary sleep disorders (including habitual snoring, sleep apnea, and restless legs syndrome), respiratory diseases (emphysema and chronic bronchitis), thyroid disease, and cancer as well as increased CRP levels. In addition, the study participants with NRS only reported poorer scores on the Functional Outcomes of Sleep Questionnaire (FOSQ) than those without insomnia symptoms or those with NIS only.

#### CONCLUSIONS:

These findings suggest that there are substantial differences between NIS and NRS in terms of sociodemographic factors, comorbidity with other sleep and physical disorders, increased CRP level, and functional impairment. An inflammatory response might play a unique role in the pathogenesis of NRS.

CITATION: Zhang J; Lamers F; Hickie IB; He JP; Feig E; Merikangas KR. Differentiating nonrestorative sleep from nocturnal insomnia symptoms: demographic, clinical, inflammatory, and functional correlates. SLEEP 2013;36(5):671-679.

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<http://www.ingentaconnect.com/content/amsus/zmm/2013/00000178/00000005/art00019>

#### **A Primer on the Unique Challenges of Female Soldiers' Reproductive Issues in a War-Ready Culture.**

Authors: Fitzgerald, April S.; Duboyce, Rita L.; Ritter, Joan B.; Omori, Deborah J.; Cooper, Barbara A.; O'Malley, Patrick G.

Source: Military Medicine, Volume 178, Number 5, May 2013 , pp. 511-516(6)

In 1951, a U.S. Presidential Executive Order outlined regulations governing the involuntary separation of women from military service in the event of pregnancy, parenting, or giving live birth while on commissioned service. Subsequent public law and court decisions have changed the rules on female soldier pregnancy and parenting. Initially capped at 2%, maximum allowable percentage of the military, female soldiers now comprise over 14% of the U.S. active duty military, numbering over 200,000. The issues of sexuality, family planning, pregnancy, breast feeding, and family care are unique in this population and affect soldier readiness and deployment planning. Many of these challenges are amenable to physician intervention and guidance to ameliorate the barriers to service. Both clinicians and policy makers should be attentive to advancing a system that affords equal opportunity and optimizes health for all service members.

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<http://onlinelibrary.wiley.com/doi/10.1002/jts.21805/abstract>

#### **A Dyadic Analysis of the Influence of Trauma Exposure and Posttraumatic Stress Disorder Severity on Intimate Partner Aggression.**

Wolf, E. J., Harrington, K. M., Reardon, A. F., Castillo, D., Taft, C. T. and Miller, M. W.

This study used structural equation modeling to evaluate a mediation model of the relationship between trauma exposure, posttraumatic stress disorder (PTSD) symptoms, and perpetration of intimate partner physical and psychological aggression in trauma-exposed veterans and their cohabitating spouses ( $n = 286$  couples; 88% male veteran and female spouse, 80.8% White, non-Hispanic). Dyadic data analyses were used to simultaneously evaluate actor and partner effects using the actor-partner interdependence model (Kashy & Kenny, 2000). The primary hypothesis was that PTSD would mediate the association between trauma exposure and intimate partner physical and psychological aggression with these effects evident both within and across members of a couple (i.e., actor and partner effects). The best-fitting model included (a) equivalent actor and partner direct effects of trauma on veterans' acts of psychological aggression ( $\beta = .17$  to  $.20$ ,  $p = .001$ ), and (b) equivalent actor and partner indirect effects via PTSD on veterans' acts of physical aggression ( $\beta = .08$  to  $.10$ ,  $p < .001$ ). There were no direct or indirect effects predicting the spouses' aggression. Results suggest it is important to consider the trauma histories and possible presence of PTSD in both partners as this may be a point of intervention when treating distressed couples.

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<http://vathek.org/doi/abs/10.1350/ijps.2013.15.1.300>

**Biopsychosociocultural perspective on 'Operation Enduring Freedom/Operation Iraqi Freedom' women veterans as civilian police officers: mild traumatic brain injury and post-traumatic stress disorder challenges.**

Ronn Johnson

International Journal of Police Science & Management: Spring 2013, Vol. 15, No. 1, pp. 45-50.

Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) veterans constitute a large portion of police officer recruits. Women applicants present with similar gender-specific health-care practice needs. To improve the quality of care for this vulnerable and underserved veteran population, it is essential to begin with a systematic assessment using a biopsychosociocultural approach.

Internationally, shortages in compensation and pension health-care professionals within Veterans Affairs have resulted in the underdiagnosis and undertreatment of post-traumatic stress disorder (PTSD) and mild traumatic brain injury (mTBI). The health-care needs of OEF/OIF veterans can fuel psycholegal issues for police departments. These issues usually take place in the form of negligent hire and/or retention misconduct cases. Female OEF/OIF veterans may need additional health-care services for PTSD or mTBI after they enter another male-dominated culture. Although not every female veteran seeking a job in law enforcement has PTSD and mTBI, evaluating these veterans using a biopsychosociocultural approach provides a framework for early identification, intervention and prevention. This paper offers

an educational and training perspective aimed at sensitising hiring authorities to clinically relevant transition and adjustment issues as female veterans shift into civilian police departments.

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<http://www.degruyter.com/view/j/peps.2013.19.issue-1/peps-2013-0007/peps-2013-0007.xml>

### **Policy Implications of Demographic Changes in the VHA Veteran Population Following OEF/OIF.**

Jomana Amara

Peace Economics, Peace Science and Public Policy. Volume 19, Issue 1, Pages 56–72

The US Department of Defense (DoD) and the US Department of Veterans Affairs (VA) are the two institutions responsible for the medical care of military personnel and Veterans. DoD's major policy and operational personnel changes impact the VA by modifying the characteristics of Veterans presenting at the VA for medical health care. The challenges to VA resulting from DoD's changes over the past four decades include managing the large influx to the VA of aging Veterans; accommodating the Veterans from Operation Enduring Freedom and Operation Iraqi Freedom (OEF/OIF); responding to the expanded role of female service members in DoD; accepting increased numbers of National Guard and Reserve Components resulting from extended deployment and expanded operational role.

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<http://socwork.wisc.edu/files/Gunter-Hunt-article.pdf>

### **Outreach to Women Veterans of Iraq and Afghanistan: A VA and National Guard Collaboration.**

Gail Gunter-Hunt, MSW; Jill Feldman, PhD; Julie Gendron, MSW; Anna Bonney, BSN; and Jeffrey Unger, AAS

Federal Practitioner, February 2013

Women in the military have served in the Iraq war (Operation Iraqi Freedom [OIF]) and are serving in the Afghanistan war (Operation Enduring Freedom [OEF]), and the Iraq transition to stability operations (Operation New Dawn [OND]) in numbers that are unprecedented in U.S. history. In Wisconsin, the 2009 mobilization of the 32nd Infantry Brigade Combat Team of the Wisconsin Army National Guard resulted in the state's largest deployment since World War II. A total of 3,218 soldiers representing units from 36 Wisconsin communities were deployed to Iraq. Of these troops, 337 were women. On their return in 2010, all of these troops faced readjustment issues. However, the increasing experience with returning women service members has revealed physical, mental health, and psychosocial readjustment issues that differ from those of their male counterparts. Additionally, many readjustment issues may be experienced differently by men and women veterans.

To respond to the increasing and specialized needs of Wisconsin's re - turning women troops, the Wisconsin National Guard Transition Assistance Advisor requested the contribution of the Women

Veterans Program Managers (WVPMs) from VA hospitals. Linking women service members with VA services was deemed advantageous, because women's comprehensive care at the VA would decrease fragmented care. Additionally, VA interdisciplinary primary care would promote the necessary consideration of women's unique experiences, needs, and preferences when providing treatment.

This collaboration resulted in a special women's component to the Demobilization and Reintegration programs for returning service members to ease their transition back to civilian life. The component for women was initially implemented in 2010 as Wisconsin National Guard troops returned from Iraq. The purpose of this paper is to present a profile of this National Guard and VA collaborative program that addressed specific reintegration challenges that veterans may face.

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<http://apt.rcpsych.org/content/19/3/181.short>

### **Post-traumatic stress disorder: new directions in pharmacotherapy.**

Correspondence Professor Ben Green, Professor of Postgraduate Medical Education and Psychiatry, University of Chester, Faculty of Health and Social Care, Riverside Campus, Castle Drive, Chester CH1 1SL, UK. Email: b.green@chester.ac.uk

Advances in Psychiatric Treatment (2013) 19: 181-190

As many as 10% of the population experience post-traumatic stress disorder (PTSD) at some time in their lives. It often runs a severe, chronic and treatment-resistant course. This article reviews the evidence base for typically recommended treatments such as cognitive-behavioural therapy (CBT), eye movement desensitisation and reprocessing and selective serotonin reuptake inhibitors (SSRIs). It tabulates the major randomised controlled trials of SSRIs and trauma-focused CBT and reviews research on novel treatments such as ketamine, MDMA, quetiapine, propranolol and prazosin.

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<http://www.sciencedirect.com/science/article/pii/S0306453013001170>

### **Psychometric and neurobiological assessment of resilience in a non-clinical sample of adults.**

Natalia Petros, Jolanta Opacka-Juffry, Jörg H Huber

Psychoneuroendocrinology

Available online 1 May 2013

Summary

Background

Resilient individuals are capable of adjusting and coping successfully in the face of adversity. Efforts to

assess resilience and its biomarkers have focused on individuals with a history of trauma and related disorders.

#### Objective

To psychologically assess resilience in a non-clinical community population through questionnaires, and analyse the associations between the psychological parameters and salivary cortisol and dehydroepiandrosterone sulphate (DHEA-S) as putative biomarkers of resilience.

#### Method

An opportunistic sample (n = 196) completed a cross-sectional survey assessing resilience, self-reported depressive symptoms and anxiety, and possible correlates. A sub-sample (n = 32) selected in order to maximise variation of mental health, provided saliva samples for enzyme-linked immunoassay (ELISA) detection of cortisol and DHEA-S.

#### Results

Resilience correlated negatively with depressive symptoms, trait anxiety and early life stress, and positively with self-efficacy, optimism, social support and wellbeing (all  $r > 0.40$ ; all  $p$ -values  $\leq 0.001$  except for early life stress:  $r = -0.20$ ;  $p \leq 0.05$ ). Resilience and DHEA-S concentrations correlated significantly ( $r = 0.35$ ;  $p \leq 0.05$ ); this relationship remained stable after adjustment for demographics. Gender differences were observed for DHEA-S and cortisol ( $p \leq 0.05$ ).

#### Conclusion

Resilience is associated with positive aspects of psychological health and salivary DHEA-S, suggesting the latter can be treated as a biomarker of resilience in a non-clinical sample of adults.

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<http://www.sciencedirect.com/science/article/pii/S0005796713000715>

### **Which treatment worked better for whom? Moderators of group cognitive behavioral therapy versus adapted mindfulness based stress reduction for anxiety disorders.**

Joanna J. Arch, Ph.D, Catherine R. Ayers, Ph.D

Behaviour Research and Therapy, Available online 2 May 2013

#### Abstract

##### Objective

Identifying treatment moderators facilitates treatment matching and personalized medicine. No previous studies have investigated treatment moderators for a mindfulness-based versus traditional cognitive behavioral therapy (CBT) for anxiety disorders to determine for whom each is most effective. The current study examined three putative moderators of principal anxiety disorder severity outcomes for adapted mindfulness based stress reduction (MBSR) and group CBT -- baseline depression symptoms, anxiety sensitivity, and diagnostic severity.

## Method

Seventy-one patients with a DSM-IV anxiety disorder were randomized to adapted MBSR or group CBT and assessed at baseline, post-treatment, and 3-month follow up.

## Results

CBT outperformed adapted MBSR among those with no to mild depressive symptoms and, at post-treatment only, among those with very high anxiety sensitivity. At follow up, adapted MBSR outperformed CBT among those with moderate to severe depressive symptoms and among those with average anxiety sensitivity (for this sample). Baseline severity affected post-treatment outcomes differently in CBT than in adapted MBSR.

## Conclusion

Baseline levels of depression, anxiety sensitivity, and to some extent diagnostic severity, differentially moderated outcomes in CBT and adapted MBSR for anxiety disorders. Recommendations and clinical implications are discussed.

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<http://www.biomedcentral.com/1471-244X/13/130/abstract>

## **Predictors of psychiatric disorders in combat Veterans.**

### Background

Most previous research that has examined mental health among Operation Enduring Freedom and Operation Iraqi Freedom (OEF/OIF) combatants has relied on self-report measures to assess mental health outcomes; few studies have examined predictors of actual mental health diagnoses. The objective of this longitudinal investigation was to identify predictors of psychiatric disorders among Marines who deployed to combat in Iraq and Afghanistan.

### Methods

The study sample consisted of 1113 Marines who had deployed to Iraq or Afghanistan. Demographic and psychosocial predictor variables from a survey that all Marines in the sample had completed were studied in relation to subsequent psychiatric diagnoses. Univariate and multivariate logistic regression were used to determine the influence of the predictors on the occurrence of psychiatric disorders.

### Results

In a sample of Marines with no previous psychiatric disorder diagnoses, 18% were diagnosed with a new-onset psychiatric disorder. Adjusting for other variables, the strongest predictors of overall psychiatric disorders were female gender, mild traumatic brain injury symptoms, and satisfaction with leadership. Service members who expressed greater satisfaction with leadership were about half as likely to develop a mental disorder as those who were not satisfied. Unique predictors of specific types of mental disorders were also identified.

### Conclusions

Overall, the study's most relevant result was that two potentially modifiable factors, low satisfaction

with leadership and low organizational commitment, predicted mental disorder diagnoses in a military sample. Additional research should aim to clarify the nature and impact of these factors on combatant mental health.

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<http://www.ncbi.nlm.nih.gov/pubmed/23645606>

Nicotine Tob Res. 2013 May 3. [Epub ahead of print]

**Mobile Contingency Management as an Adjunctive Smoking Cessation Treatment for Smokers With Posttraumatic Stress Disorder.**

Hertzberg JS, Carpenter VL, Kirby AC, Calhoun PS, Moore SD, Dennis MF, Dennis PA, Dedert EA, Beckham JC.

Source: Research and Development Service, Durham Veterans Affairs Medical Center, Durham, NC;

Abstract

INTRODUCTION:

Smokers with posttraumatic stress disorder (PTSD) smoke at higher prevalence rates and are more likely to relapse early in a quit attempt. Innovative methods are needed to enhance quit rates, particularly in the early quit period. Web-based contingency-management (CM) approaches have been found helpful in reducing smoking among other difficult-to-treat smoker populations but are limited by the need for computers. This pilot study builds on the web-based CM approach by evaluating a smartphone-based application for CM named mobile CM (mCM).

METHODS:

Following a 2-week training period, 22 smokers with PTSD were randomized to a 4-week mCM condition or a yoked (i.e., noncontingent 4-week mCM condition). All smokers received 2 smoking cessation counseling sessions, nicotine replacement, and bupropion. Participants could earn up to \$690 (\$530 for mCM, \$25.00 for assessments and office visits [up to 5], and \$35.00 for equipment return). The average earned was \$314.00.

RESULTS:

Compliance was high during the 2-week training period (i.e., transmission of videos) (93%) and the 4-week treatment period (92%). Compliance rates did not differ by group assignment. Four-week quit rates (verified with CO) were 82% for the mCM and 45% for the yoked controls. Three-month self-report quit rates were 50% in the mCM and 18% in the yoked controls.

CONCLUSIONS:

mCM may be a useful adjunctive smoking cessation treatment component for reducing smoking among smokers with PTSD, particularly early in a smoking quit attempt.

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<http://www.ncbi.nlm.nih.gov/pubmed/23643995>

Neurosci Lett. 2013 May 2. pii: S0304-3940(13)00391-1. doi: 10.1016/j.neulet.2013.04.032. [Epub ahead of print]

**Spontaneous brain activity in combat related PTSD.**

Yan X, Brown AD, Lazar M, Cressman VL, Henn-Haase C, Neylan TC, Shalev A, Wolkowitz OM, Hamilton SP, Yehuda R, Sodickson DK, Weiner MW, Marmar CR.

Source: Steven and Alexandra Cohen Veterans Center for the Study of Posttraumatic Stress and Traumatic Brain Injury, Department of Psychiatry, NYU School of Medicine, New York, NY. Electronic address: xiaodan.yan@nyumc.org.

Abstract

Posttraumatic stress disorder (PTSD) is a prevalent psychiatric disorder, especially in combat veterans. Existing functional neuroimaging studies have provided important insights into the neural mechanisms of PTSD using various experimental paradigms involving trauma recollection or other forms of emotion provocation. However it is not clear whether the abnormal brain activity is specific to the mental processes related to the experimental tasks or reflects general patterns across different brain states. Thus, studying intrinsic spontaneous brain activity without the influence of external tasks may provide valuable alternative perspectives to further understand the neural characteristics of PTSD. The present study evaluated the magnitudes of spontaneous brain activity of male US veterans with or without PTSD, with the two groups matched on age, gender, and ethnicity. Amplitudes of low frequency fluctuation (ALFF), a data driven analysis method, were calculated on each voxel of the resting state fMRI data to measure the magnitudes of spontaneous brain activity. Results revealed that PTSD subjects showed increased spontaneous activity in the amygdala, ventral anterior cingulate cortex, insula, and orbital frontal cortex, as well as decreased spontaneous activity in the precuneus, dorsal lateral prefrontal cortex and thalamus. Within the PTSD group, larger magnitudes of spontaneous activity in the thalamus, precuneus and dorsal lateral prefrontal cortex were associated with lower re-experiencing symptoms. Comparing our results with previous functional neuroimaging findings, increased activity of the amygdala and anterior insula and decreased activity of the thalamus are consistent patterns across emotion provocation states and the resting state.

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<http://www.ncbi.nlm.nih.gov/pubmed/23643369>

Explore (NY). 2013 May-Jun;9(3):142-9. doi: 10.1016/j.explore.2013.02.002.

**Qigong as a novel intervention for service members with mild traumatic brain injury.**

Yost TL, Taylor AG.

Source: Center for Nursing Science and Clinical Inquiry, Tripler Army Medical Center, Honolulu, HI.  
Electronic address: terri.yost@us.army.mil.

## Abstract

### PURPOSE:

To describe the experience of internal qigong practice in service members diagnosed with mild traumatic brain injury (mTBI).

### THEORETICAL FRAMEWORK:

The study used qualitative descriptive phenomenological methods originally described by Husserl and later refined by Giorgi.

### METHODOLOGY:

Participants were interviewed about their experiences while learning qigong to determine their level of interest, benefits, and/or adverse effects; ease of learning/performing the routine; and any barriers to practice.

### SAMPLE:

Six service members with mTBI receiving outpatient neurorehabilitation at the Defense and Veterans Brain Injury Center-Charlottesville Rehabilitation Center.

### INTERVENTION:

Participants learned Reflective Exercise Qigong, a form of qigong developed specifically to require less complex movement and balance than most forms of qigong, making it ideal for those with potential coordination and balance issues.

### DATA COLLECTION:

Semistructured interviews took place after four weeks of formal qigong instruction, then again after the subjects completed eight weeks. Interview data were analyzed with phenomenological methods described by Giorgi.

### RESULTS:

Four themes emerged from the interview data: "the physical experience of qigong," "regaining control," "no pain, a lot of gain," and "barriers to qigong practice." Participants offered examples of how qigong enabled them to control refractory symptoms after mTBI while decreasing reliance on pharmacotherapy. All agreed that qigong was uniquely conducive to the disciplined mindset of military service members and that the simplicity of Reflective Exercise qigong, compared with similar modalities such as tai chi and yoga, was well suited to individuals with decreased balance, cognition, and memory related to mTBI.

Published by Elsevier Inc.

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<http://www.ncbi.nlm.nih.gov/pubmed/23647285>

J Consult Clin Psychol. 2013 May 6. [Epub ahead of print]

**Pretreatment Anxiety Predicts Patterns of Change in Cognitive Behavioral Therapy and Medications for Depression.**

Forand NR, Derubeis RJ.

Abstract

Objective:

Some studies report that initial anxiety is associated with equivocal or negative effects in depression treatment. In contrast, at least 4 studies of cognitive behavioral therapy (CBT) report that anxiety predicts greater or more rapid change in depression. Further exploration is needed to clarify the relationship between initial anxiety and depression change. Questions include the relationship between anxiety and patterns of change and time to relapse, as well as the specificity effects to CBT.

Method:

The study assessed the relation of Beck Anxiety Inventory anxiety scores to early rapid change and overall change in Beck Depression Inventory-II depression scores during acute depression treatment. Participants were 178 individuals enrolled in a randomized controlled trial of CBT versus antidepressant medications (ADMs) for moderate to severe depression. They were 58% female and 83% Caucasian, with an average age of 40 (SD = 11.5). Thirty-four percent (34%) were married or cohabitating. Hierarchical linear models, including quadratic growth parameters, were used to model change. The relation of anxiety to the probability of posttreatment relapse was also examined.

Results:

Findings indicate that higher levels of anxiety predict early rapid change, but not overall change, in both CBT and ADM. However, patients with higher levels of intake anxiety evidenced increased risk for relapse after CBT.

Conclusions:

Early rapid change predicted by anxiety occurs across different treatment conditions, but this early rapid response is not indicative of positive overall outcome in all cases. These findings might indicate that anxiety predicts a response to nonspecific "common factors" of treatment. (PsycINFO Database Record (c) 2013 APA, all rights reserved).

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<http://www.ncbi.nlm.nih.gov/pubmed/23648914>

Chest. 2013 May;143(5):1489-99. doi: 10.1378/chest.12-1219.

**Genetic and immunologic aspects of sleep and sleep disorders.**

Parish JM.

#### Abstract

The study of genetics is providing new and exciting insights into the pathogenesis, diagnosis, and treatment of disease. Both normal sleep and several types of sleep disturbances have been found to have significant genetic influences, as have traits of normal sleep, such as those evident in EEG patterns and the circadian sleep-wake cycle. The circadian sleep-wake cycle is based on a complex feedback loop of genetic transcription over a 24-h cycle. Restless legs syndrome (RLS) and periodic limb movements in sleep (PLMS) have familial aggregation, and several genes have a strong association with them. Recent genome-wide association studies have identified single nucleotide polymorphisms linked to RLS/PLMS, although none has a definite functional correlation. Narcolepsy/cataplexy are associated with HLA DQB1\*0602 and a T-cell receptor  $\alpha$  locus, although functional correlations have not been evident. Obstructive sleep apnea is a complex disorder involving multiple traits, such as anatomy of the oropharynx, ventilatory control, and traits associated with obesity. Although there is clear evidence of familial aggregation in the obstructive sleep apnea syndrome, no specific gene or locus has been identified for it. Angiotensin-converting enzyme has been proposed as a risk variant, but evidence is weak. Fatal familial insomnia and advanced sleep phase syndrome are sleep disorders with a definite genetic basis.

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<http://www.ncbi.nlm.nih.gov/pubmed/23650250>

Am J Med Genet B Neuropsychiatr Genet. 2013 May 3. doi: 10.1002/ajmg.b.32167. [Epub ahead of print]

#### **Blood-Based Gene-Expression Predictors of PTSD Risk and Resilience Among Deployed Marines: A Pilot Study.**

Glatt SJ, Tylee DS, Chandler SD, Pazol J, Nievergelt CM, Woelk CH, Baker DG, Lohr JB, Kremen WS, Litz BT, Tsuang MT; Marine Resiliency Study Investigators.

Source: Psychiatric Genetic Epidemiology and Neurobiology Laboratory (PsychGENE Lab), Departments of Psychiatry and Behavioral Sciences and Neuroscience and Physiology, Medical Genetics Research Center, SUNY Upstate Medical University, Syracuse, New York.

#### Abstract

Susceptibility to PTSD is determined by both genes and environment. Similarly, gene-expression levels in peripheral blood are influenced by both genes and environment, and expression levels of many genes show good correspondence between peripheral blood and brain. Therefore, our objectives were to test the following hypotheses: (1) pre-trauma expression levels of a gene subset (particularly immune-system genes) in peripheral blood would differ between trauma-exposed Marines who later developed PTSD and those who did not; (2) a predictive biomarker panel of the eventual emergence of PTSD

among high-risk individuals could be developed based on gene expression in readily assessable peripheral blood cells; and (3) a predictive panel based on expression of individual exons would surpass the accuracy of a model based on expression of full-length gene transcripts. Gene-expression levels were assayed in peripheral blood samples from 50 U.S. Marines (25 eventual PTSD cases and 25 non-PTSD comparison subjects) prior to their deployment overseas to war-zones in Iraq or Afghanistan. The panel of biomarkers dysregulated in peripheral blood cells of eventual PTSD cases prior to deployment was significantly enriched for immune genes, achieved 70% prediction accuracy in an independent sample based on the expression of 23 full-length transcripts, and attained 80% accuracy in an independent sample based on the expression of one exon from each of five genes. If the observed profiles of pre-deployment mRNA-expression in eventual PTSD cases can be further refined and replicated, they could suggest avenues for early intervention and prevention among individuals at high risk for trauma exposure. © 2013 Wiley Periodicals, Inc.

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<http://www.ncbi.nlm.nih.gov/pubmed/23647151>

Psychol Addict Behav. 2013 May 6. [Epub ahead of print]

**Gender Differences in Relationships Among PTSD Severity, Drinking Motives, and Alcohol Use in a Comorbid Alcohol Dependence and PTSD Sample.**

Lehavot K, Stappenbeck CA, Luterek JA, Kaysen D, Simpson TL.

Abstract

Alcohol dependence (AD) and posttraumatic stress disorder (PTSD) are highly prevalent and comorbid conditions associated with a significant level of impairment. Little systematic study has focused on gender differences specific to individuals with both AD and PTSD. The current study examined gender-specific associations between PTSD symptom severity, drinking to cope (i.e., reduce negative affect), drinking for enhancement (i.e., increase positive affect), and average alcohol use in a clinical sample of men (n = 46) and women (n = 46) with comorbid AD and PTSD. Results indicated that PTSD symptoms were highly associated with drinking-to-cope motives for both men and women, but with greater drinking for enhancement motives for men only. Enhancement motives were positively associated with average alcohol quantity for both men and women, but coping motives were significantly associated with average alcohol quantity for women only. These findings suggest that for individuals with comorbid AD and PTSD, interventions that focus on reducing PTSD symptoms are likely to lower coping motives for both genders, and targeting coping motives is likely to result in decreased drinking for women but not for men, whereas targeting enhancement motives is likely to lead to reduced drinking for both genders. (PsycINFO Database Record (c) 2013 APA, all rights reserved).

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<http://www.ncbi.nlm.nih.gov/pubmed/23646917>

Law Hum Behav. 2013 May 6. [Epub ahead of print]

**PTSD Symptoms and Family Versus Stranger Violence in Iraq and Afghanistan Veterans.**

Sullivan CP, Elbogen EB.

Abstract

As a diagnosis, posttraumatic stress disorder (PTSD) has been associated with violence committed by veterans in many studies; however, a potential link to specific PTSD symptoms has received relatively less attention. This paper examines the relationship between PTSD symptoms and different types of violent behavior in Iraq and Afghanistan veterans. Participants were randomly sampled from a roster of all separated U.S. military service members or national guard/reservists who served after September 11, 2001. Data were collected at baseline and 1-year follow-up from a national sample of N = 1,090 veterans, from 50 states and all military branches. Of these veterans, 13% reported aggression toward a family member and 9% toward a stranger during the 1-year study period. Anger symptoms at baseline predicted higher odds of family violence at follow-up, both severe (OR = 1.30, CI [1.13, 1.48],  $p < .0001$ ) and any (OR = 1.28, CI [1.19, 1.37],  $p < .0001$ ). PTSD flashback symptoms at baseline predicted higher odds of stranger violence at follow-up, both severe (OR = 1.26, CI [1.11, 1.42],  $p < .0001$ ) and any (OR = 1.16, CI [1.05, 1.28],  $p = .0029$ ). Analyses revealed that males were more likely to engage in stranger violence, whereas females were more likely to endorse aggression in the family context. The results provide limited support to the hypothesis that PTSD "flashbacks" in veterans are linked to violence. The differing multivariate models illustrate distinct veteran characteristics associated with specific types of violence. (PsycINFO Database Record (c) 2013 APA, all rights reserved).

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<http://www.ncbi.nlm.nih.gov/pubmed/23653015>

J Behav Med. 2013 May 8. [Epub ahead of print]

**The reciprocal relationship between vigor and insomnia: a three-wave prospective study of employed adults.**

Armon G, Melamed S, Vinokur A.

Source: Department of Psychology, University of Haifa, Haifa, 31905, Israel, galitarmon@psy.haifa.ac.il.

Abstract

Vigor is a positive affect experienced at work. It refers to feelings of possessing physical strength, emotional energy, and cognitive liveliness. Accumulated evidence suggests that vigor has a protective effect on health, but the mechanisms of this link remain to be discovered. This study focused on sleep quality as one possible mechanism. We used a full-panel, longitudinal design to investigate the

hypothesis that changes in vigor over time have inverse effects on insomnia and vice versa. The study was conducted on a multi-occupational sample of working adults (N = 1,414, 70 % men) at three time points (T1, T2, and T3), over a period of about 3 years. Vigor was assessed by the Shirom-Melamed Vigor Measure, while insomnia was assessed by the Brief Athens Insomnia Scale. Results of SEM-analyses, controlling for neuroticism, and other potential confounding variables, offered a strong support for the study hypotheses, indicating cross-lagged reciprocal inverse relationships between vigor and insomnia. The results suggest that vigor has a protective effect on sleep quality and that vigor might positively influence health through this pathway.

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#### Links of Interest

Two Pleas for Sanity in Judging Saneness

<http://www.nytimes.com/2013/05/02/books/greenbergs-book-of-woe-and-francesc-saving-normal.html>

Is Psychiatry Dishonest?

[http://www.slate.com/articles/arts/books/2013/05/book\\_of\\_woe\\_the\\_dsm\\_and\\_the\\_unmaking\\_of\\_psychiatry\\_by\\_gary\\_greenberg\\_reviewed.html](http://www.slate.com/articles/arts/books/2013/05/book_of_woe_the_dsm_and_the_unmaking_of_psychiatry_by_gary_greenberg_reviewed.html)

Motor vehicle crashes: A little-known risk to returning veterans of Iraq and Afghanistan

[http://www.washingtonpost.com/national/health-science/motor-vehicle-crashes-a-little-known-risk-to-returning-veterans-of-iraq-and-afghanistan/2013/05/05/41da2f6c-a3b1-11e2-82bc-511538ae90a4\\_story.html](http://www.washingtonpost.com/national/health-science/motor-vehicle-crashes-a-little-known-risk-to-returning-veterans-of-iraq-and-afghanistan/2013/05/05/41da2f6c-a3b1-11e2-82bc-511538ae90a4_story.html)

60 Minutes: Invisible Wounds ("Tens of thousands of servicemen and women are dealing with lasting brain damage as the Pentagon scrambles to treat these invisible wounds.")

<http://www.cbsnews.com/video/watch/?id=50146231n>

Nearly 20 Percent of Suicidal Youths Have Guns in Their Home

<http://www.sciencedaily.com/releases/2013/05/130506095415.htm>

Study Adds to Evidence That Cigarettes Are Gateway to Marijuana

<http://www.sciencedaily.com/releases/2013/05/130505073742.htm>

PTSD research: Distinct gene activity patterns from childhood abuse

[http://www.eurekalert.org/pub\\_releases/2013-05/ehs-prd050113.php](http://www.eurekalert.org/pub_releases/2013-05/ehs-prd050113.php)

Breaking the silence of suicide

[http://www.eurekalert.org/pub\\_releases/2013-05/cu-bts050613.php](http://www.eurekalert.org/pub_releases/2013-05/cu-bts050613.php)

Psychiatry's Guide Is Out of Touch With Science, Experts Say

<http://www.nytimes.com/2013/05/07/health/psychiatrys-new-guide-falls-short-experts-say.html>

Restless Legs Syndrome, Insomnia and Brain Chemistry: A Tangled Mystery Solved?

<http://www.sciencedaily.com/releases/2013/05/130507134600.htm>

Psychology Is WEIRD; Western college students are not the best representatives of human emotion, behavior, and sexuality

[http://www.slate.com/articles/health\\_and\\_science/science/2013/05/weird\\_psychology\\_social\\_science\\_researchers\\_rely\\_too\\_much\\_on\\_western\\_college.html](http://www.slate.com/articles/health_and_science/science/2013/05/weird_psychology_social_science_researchers_rely_too_much_on_western_college.html)

Stress study offers clues for new antidepressant drugs

[http://www.nlm.nih.gov/medlineplus/news/fullstory\\_136575.html](http://www.nlm.nih.gov/medlineplus/news/fullstory_136575.html)

On guard against traumatic brain injuries

[http://www.army.mil/article/100271/On\\_guard\\_against\\_traumatic\\_brain\\_injuries/](http://www.army.mil/article/100271/On_guard_against_traumatic_brain_injuries/)

Mental Health Services and Support for National Guard and Reserves

[http://www.health.mil/blog/13-05-07/Mental\\_Health\\_Services\\_and\\_Support\\_for\\_National\\_Guard\\_and\\_Reserves.aspx](http://www.health.mil/blog/13-05-07/Mental_Health_Services_and_Support_for_National_Guard_and_Reserves.aspx)

(annotated list of resources)

First Responders Seek Out Counseling as Attitudes Shift

<http://online.wsj.com/article/SB10001424127887324743704578445291931587994.html>

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**Research Tip of the Week:** [Military Crosswalk Search](#)



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[Crosswalks](#)

## Military Crosswalk Search

Search codes or titles from the **Military Occupational Classification (MOC)**.

Select a branch:

Examples: 0963, radio chief

Input a military occupational specialty by number or name and get a link to relevant entries in the [Occupational Outlook Handbook](#). Works for Army and Marine Corps MOS; Navy and Coast Guard Ratings; Air Force AFSC.



The Military Occupational Classification (MOC) crosswalk has been updated by the Department of Defense (July 2012) and incorporated into O\*NET OnLine and [My Next Move for Veterans](#). Over 10,000 MOC occupations are linked to related O\*NET-SOC occupations. Transitioning military personnel can use their military code or title to discover related civilian occupations/careers within O\*NET Online's Military Crosswalk Search or My Next Move for Veterans' Military Transition Search.

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