



## CDP Research Update -- May 4, 2017

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<https://content.govdelivery.com/accounts/USVHA/bulletins/196d0d5>

## **PTSD Monthly Update - What Can I Do If I Think I Have PTSD?**

National Center for PTSD

April 2017 Issue

After a traumatic event, it's normal to think, act, and feel differently than usual. Most people will start to feel better after a few weeks or months.

If your symptoms last longer than a few months, are very upsetting, or disrupt your daily life, treatment may help.

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<http://tandfonline.com/doi/full/10.1080/16506073.2017.1286517>

### **Linking attentional control and PTSD symptom severity: the role of rumination.**

Rebecca C. Cox & Bunmi O. Olatunji

Cognitive Behaviour Therapy

Published online: 03 Mar 2017

Although deficits in attentional control have been linked to posttraumatic stress disorder (PTSD), the mechanism that may account for this association has not been fully elucidated. The present study examined rumination as a mediator of the relationship between attentional control and PTSD symptoms. Veterans with PTSD and trauma-exposed veterans without PTSD completed measures of attentional control, rumination, and PTSD symptom severity. As predicted, the findings showed that veterans with PTSD reported significantly lower levels of attentional control than veterans without PTSD. Veterans with PTSD also reported significantly higher levels of rumination than veterans without PTSD. Subsequent analysis of the total sample revealed that the relationship between attentional control and PTSD symptom severity was accounted for by excessive rumination. Attentional control may contribute to PTSD symptoms through excessive rumination. Attentional control and rumination may be important targets for PTSD interventions.

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<http://tandfonline.com/doi/full/10.1080/16506073.2016.1263971>

**Cognitive behavioral therapy in practice: therapist perceptions of techniques, outcome measures, practitioner qualifications, and relation to research.**

Benjamin Bohman, Alberto Santi & Gerhard Andersson

Cognitive Behaviour Therapy

Published online: 22 Dec 2016

<http://dx.doi.org/10.1080/16506073.2016.1263971>

Cognitive behavioral therapy (CBT) has a strong evidence base for several psychiatric disorders, however, it may be argued that currently there is no overall agreement on what counts as 'CBT'. One reason is that CBT is commonly perceived as encompassing a broad range of treatments, from purely cognitive to purely behavioral, making it difficult to arrive at a clear definition. The purpose of the present study was to explore practicing therapists' perceptions of CBT. Three hundred fifty members of two multi-disciplinary interest groups for CBT in Sweden participated. Mean age was 46 years, 68% were females, 63% psychologists and mean number of years of professional experience was 12 years. Participants completed a web-based survey including items covering various aspects of CBT practice. Overall, therapist perceptions of the extent to which different treatment techniques and procedures were consistent with CBT were in line with current evidence-based CBT protocols and practice guidelines, as were therapists' application of the techniques and procedures in their own practice. A majority of participants (78%) agreed that quality of life or level of functioning were the most important outcome measures for evaluating treatment success. Eighty percent of therapists believed that training in CBT at a basic level was a requirement for practicing CBT. There was a medium size Spearman correlation of  $r_s=.46$  between the perceived importance of research to practice and the extent to which participants kept themselves updated on research. Implications for training, quality assurance, and the effectiveness of CBT in clinical practice are discussed.

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<http://onlinelibrary.wiley.com/doi/10.1002/jts.22169/abstract>

**Trauma-Related Disgust in Veterans With Interpersonal Trauma.**

Jessica Bomyea, Carolyn B. Allard

Journal of Traumatic Stress  
First published: 21 April 2017  
DOI: 10.1002/jts.22169

Although traditionally conceptualized as an anxiety disorder, variability in posttraumatic stress disorder (PTSD) may be explained by individual differences in peri- or posttraumatic disgust. We examined relationships between disgust reactions and other trauma-related symptoms in 100 veterans with a history of interpersonal trauma and gender differences in these variables. We also evaluated the mediating role of posttraumatic disgust and guilt in the relationship between peritraumatic disgust and PTSD symptoms. Participants completed cross-sectional self-report questionnaires of trauma-related emotions, PTSD, and other psychological symptoms as part of clinical intake procedures. Women and men did not differ on trauma-related emotions or symptoms. However, the relationship between peri- and posttraumatic disgust depended on gender, with men reporting a stronger association between peri- and posttraumatic disgust than women ( $p = .013$ ,  $\Delta R^2 = .04$ ). Posttraumatic disgust and guilt mediated the relationship between peritraumatic disgust and PTSD symptoms, controlling for gender ( $a_1 a_2 b_1 = 0.18$ ,  $SE = 0.09$ ,  $PM = .19$ ). Our results converge with those found in other studies suggesting that disgust is a common trauma-related emotion and that men and women may experience differential relationships between peri- and posttraumatic emotional experiences. Further study of the role of trauma-related emotional responses in PTSD etiology and treatment is warranted.

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<http://onlinelibrary.wiley.com/doi/10.1002/jts.22175/abstract>

### **Integrated Treatment of PTSD and Substance Use Disorders: Examination of Imaginal Exposure Length.**

Adam C. Mills, Christal L. Badour, Kristina J. Korte, Therese K. Killeen, Aisling V. Henschel, Sudie E. Back

Journal of Traumatic Stress  
First published: 22 March 2017  
DOI: 10.1002/jts.22175

Efforts to improve the efficiency of prolonged exposure (PE) therapy for posttraumatic stress disorder (PTSD) have demonstrated that reducing the length of imaginal exposures does not negatively affect treatment outcome. A recent adaptation of PE,

called Concurrent Treatment of PTSD and Substance Use Disorders Using Prolonged Exposure [COPE], integrates substance use disorder treatment with PE in the same timeframe (twelve 90-minute sessions, 8 of which include imaginal exposure). The current study, which represents a subanalysis of a larger randomized controlled trial, examined how the length of imaginal exposures (nonrandomized and measured continually) related to PTSD, substance use, and depression in a sample of military veterans (N = 31) who completed the COPE treatment. Participants completed an average of 11.5 of the 12 therapy sessions and 7.2 of the 8 imaginal exposures during treatment. Results of 3 linear mixed models indicate that PTSD, substance use, and depressive symptoms all improved over the course of treatment ( $p$ s < .001;  $\eta^2$  ranged between .17 and .40), and that the length of imaginal exposures did not significantly interact with any outcome. Although preliminary, the findings suggest that it may be feasible to shorten imaginal exposures without mitigating treatment gains. Implications for treatment are discussed.

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<http://onlinelibrary.wiley.com/doi/10.1002/jts.22174/abstract>

### **Treating Veterans With PTSD and Borderline Personality Symptoms in a 12-Week Intensive Outpatient Setting: Findings From a Pilot Program.**

Meyers, L., Voller, E. K., McCallum, E. B., Thuras, P., Shallcross, S., Velasquez, T. and Meis, L.

Journal of Traumatic Stress

First published: 22 March 2017

DOI: 10.1002/jts.22174

Rates of comorbidity between borderline personality disorder and posttraumatic stress disorder (PTSD) are high in veteran populations, and clinicians are hesitant to treat PTSD given high rates of suicidality. Given promising early work integrating dialectical behavior therapy (DBT) and prolonged exposure (PE) therapy, we created a 12-week intensive outpatient program combining these two treatments. PE and DBT were provided concurrently to 33 veterans with PTSD symptoms and BPD symptoms at a large, midwestern Veteran Affairs medical center. Approximately half of the participants were male, with the majority identifying as Caucasian. Participants' ages ranged from 23 to 58 years, with a mean age of 43.21 years. The full-model of DBT was provided; PE was provided twice weekly for approximately 6 weeks of the program. Of participants, 22 veterans successfully completed the program with no dropout during

PE. Large pre- to posttreatment effect sizes were found for decreases in PTSD symptoms ( $d = 1.61$ ) and dysfunctional coping styles ( $d = 1.55$ ), and an increase in the use of DBT skills ( $d = 1.02$ ). A moderate effect size was found in the decrease of suicidal ideation ( $d = 0.64$ ). The results of this pilot program suggest that PTSD can be safely and effectively treated among veterans with comorbid symptoms of borderline personality disorder through the combination of concurrent intensive DBT and PE.

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<http://onlinelibrary.wiley.com/doi/10.1002/jts.22172/abstract>

### **Modern Warfare: Video Game Playing and Posttraumatic Symptoms in Veterans.**

Etter, D., Kamen, C., Etter, K. and Gore-Felton, C.

Journal of Traumatic Stress

First published: 3 April 2017

DOI: 10.1002/jts.22172

Many of the current generation of veterans grew up with video games, including military first-person shooter (MFPS) video games. In MFPS games, players take the role of soldiers engaged in combat in environments modeled on real-life warzones. Exposure to trauma-congruent game content may either serve to exacerbate or to ameliorate posttraumatic symptoms. The current study examined the relationship between MFPS and other shooter video game playing and posttraumatic stress disorder (PTSD) symptoms among current and former members of the military ( $N = 111$ ). Results indicated that video game play was very common, and 41.4% of participants reported playing MFPS or other shooter games (shooter players group). The shooter players group reported higher levels of PTSD symptoms than participants who did not play any video or shooter games (nonshooter/nonplayers group;  $d = 0.44$ ); however, playing shooter games was not predictive of PTSD symptoms after accounting for personality, combat exposure, and social support variables. This may indicate that the same psychosocial factors predict both PTSD and shooter video game play. Although veterans may benefit from the development and use of clinical applications of video games in PTSD treatment, clinical attention should continue to focus on established psychosocial predictors of PTSD symptoms.

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<http://onlinelibrary.wiley.com/doi/10.1002/jts.22168/abstract>

### **Sleep-Disordered Breathing Impact on Efficacy of Prolonged Exposure Therapy for Posttraumatic Stress Disorder.**

Reist, C., Gory, A. and Hollifield, M.

Journal of Traumatic Stress  
First published: 8 March 2017  
DOI: 10.1002/jts.22168

There is growing evidence that sleep disturbances may impede the utility of existing therapeutic interventions for people with posttraumatic stress disorder (PTSD). This retrospective medical record review examined the hypothesis that sleep disturbance affects the outcome of prolonged exposure (PE) therapy for PTSD. We identified 18 combat veterans with PTSD who had completed PE therapy. There were 6 subjects who had sleep-disordered breathing, 5 of whom were documented by sleep polysomnography. All subjects in the sleep-disordered group took part in a minimum of 10 sessions; the mean number of sessions was comparable between the sleep-disordered group and the group without a sleep disorder. Posttreatment PTSD Checklist scores were significantly reduced in those without a sleep disorder ( $-28.25$ ; 58.0% reduction,  $F(1, 11) = 59.04$ ,  $p < .001$ ), but were not reduced in those with sleep-disordered breathing ( $-7.17$ ; 13.5% reduction,  $dIGPP = 2.25$  [independent groups pretest-posttest design]). These observations supported the hypothesis that the efficacy of PE therapy is affected by sleep quality. If these findings are replicated, treatment algorithms may need to incorporate the presence or absence of sleep disorders as a factor in treatment choice.

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<http://onlinelibrary.wiley.com/doi/10.1002/jts.22179/abstract>

### **The Association Between Peritraumatic Dissociation and PTSD Symptoms: The Mediating Role of Negative Beliefs About the Self.**

Thompson-Hollands, J., Jun, J. J. and Sloan, D. M.

Journal of Traumatic Stress  
First published: 27 April 2017  
DOI: 10.1002/jts.22179



Peritraumatic dissociation, a term used to describe a complex array of reactions to trauma, including depersonalization, derealization, and emotional numbness, has been associated with posttraumatic stress disorder (PTSD) symptoms across a number of studies. Cognitive theory suggests that interpretations of traumatic events and reactions underlie the persistence of PTSD. The present study examined the associations among peritraumatic dissociation, posttraumatic cognitions, and PTSD symptoms in a group of trauma-exposed adults (N = 169). Results indicated that, after accounting for overall symptom severity and current dissociative tendencies, peritraumatic dissociation was significantly predictive of negative beliefs about the self ( $R^2 = .06$ ,  $p < .001$ ). Other categories of maladaptive posttraumatic cognitions did not show a similar relationship ( $R^2 = .01$  to  $.02$ , nonsignificant). Negative thoughts about the self partially mediated the association between peritraumatic dissociation and PTSD severity (completely standardized indirect effect =  $.25$ ). These findings lend support to cognitive theories of PTSD and point to an important area for clinical intervention.

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<http://onlinelibrary.wiley.com/doi/10.1002/jts.22164/abstract>

### **Domestic Civil Support Missions Can Aggravate Negative Mental Health Outcomes Among National Guardsmen: The Moderating Role of Economic Difficulties.**

Russell, D. W., Kazman, J. B., Benedek, D. M., Ursano, R. J. and Russell, C. A.

Journal of Traumatic Stress

First published: 31 January 2017

DOI: 10.1002/jts.22164

Little research has addressed potentially negative health outcomes associated with domestic civil-oriented operations, but has focused instead on traditional military operations (e.g., combat). This study, conducted following a United States Defense Support to Civilian Authorities mission undertaken by National Guard forces (N = 330), showed that responding to such missions was linked to more negative mental health outcomes, including posttraumatic stress disorder ( $\beta = 0.23$ ) and depression ( $\beta = 0.23$ ), but only among those who reported difficulty meeting their basic socioeconomic needs and not among those who did not have difficulty meeting their basic needs. The study offers suggestions for identifying individuals who may be especially vulnerable to stressors.

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<http://onlinelibrary.wiley.com/doi/10.1002/jts.22173/abstract>

### **Does the Vulnerability Paradox in PTSD Apply to Women and Men? An Exploratory Study.**

Dückers, M. L.A. and Olf, M.

Journal of Traumatic Stress

First published: 22 March 2017

DOI: 10.1002/jts.22173

Recent research suggests that greater country vulnerability is associated with a decreased, rather than increased, risk of mental health problems. Because societal parameters may have gender-specific implications, our objective was to explore whether the “vulnerability paradox” equally applies to women and men. Lifetime posttraumatic stress disorder (PTSD) prevalence data for women and men were retrieved from 11 population studies (N = 57,031): conducted in Australia, Brazil, Canada, France, Lebanon, Mexico, Netherlands, Portugal, Sweden, Switzerland, and the United States. We tested statistical models with vulnerability, gender, and their interaction as predictors. The average lifetime PTSD prevalence in women was at least twice as high as it was in men and the vulnerability paradox existed in the prevalence data for women and men ( $R^2 = .70$ ). We could not confirm the possibility that gender effects are modified by socioeconomic and cultural country characteristics. Issues of methodology, language, and cultural validity complicate international comparisons. Nevertheless, this international sample points at a parallel paradox: The vulnerability paradox was confirmed for both women and men. The absence of a significant interaction between gender and country vulnerability implies that possible explanations for the paradox at the country-level do not necessarily require gender-driven distinction.

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[http://www.archives-pmr.org/article/S0003-9993\(17\)30260-5/pdf](http://www.archives-pmr.org/article/S0003-9993(17)30260-5/pdf)

### **Association of Traumatic Brain Injury with Chronic Pain in Iraq and Afghanistan Veterans: Impact of Comorbid Mental Health Conditions.**

Karen H. Seal, Daniel Bertenthal, Deborah E. Barnes, Amy L. Byers, Irina Strigo, Kristine Yaffe and the Chronic Effects of Neurotrauma Consortium Study Group

Archives of Physical Medicine and Rehabilitation

Published online: April 25, 2017

DOI: <http://dx.doi.org/10.1016/j.apmr.2017.03.026>

### Objective

To characterize the association between traumatic brain injury (TBI) and chronic pain and pain disability in the context of comorbid conditions, posttraumatic stress disorder (PTSD) and depression to better inform care of combat veterans.

### Design

Retrospective cohort study using national VA clinical data.

### Setting

Veterans Health Administration (VHA) medical centers and community clinics nationwide.

### Participants

116,913 Iraq and Afghanistan veterans who received VA care between October 2007 and March 2015, completed a Comprehensive TBI Evaluation (CTBIE), and received a gold standard diagnosis of TBI (none, mild or moderate to severe).

### Intervention

Not applicable

### Main Outcome Measure

Chronic pain defined as at least two of the same pain diagnoses  $\geq 90$  days apart and pain disability defined as self-reported pain causing moderate to very severe interference with daily functioning

### Results

57% received  $\geq 1$  chronic pain diagnoses. Compared to those with no TBI, PTSD or depression, there was an independent risk for chronic pain in veterans with mild TBI, which was higher in veterans with moderate to severe TBI. The risk for chronic pain was additive and highest when all three conditions-TBI, depression and PTSD were co-present [Adjusted Relative Risk, (ARR) =1.53-1.62 (1.50-1.66) for mild and moderate/severe TBI respectively plus other diagnoses]. The relationship of pain disability to TBI, PTSD and depression followed a similar additive pattern.

## Conclusion

In combat veterans, chronic pain and pain disability are most commonly associated with TBI in conjunction with PTSD, depression or both. Integrated models of care that simultaneously address pain in conjunction with TBI, PTSD and depression will likely be the most clinically effective.

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<http://onlinelibrary.wiley.com/doi/10.1002/da.22623/full>

## **Between-visit changes in suicidal ideation and risk of subsequent suicide attempt.**

Gregory E. Simon, Susan M. Shortreed, Eric Johnson, Arne Beck, Karen J. Coleman, Rebecca C. Rossom, Ursula S. Whiteside, Belinda H. Operskalski and Robert B. Penfold

Depression and Anxiety

First published: 25 April 2017

DOI: 10.1002/da.22623

## Background

While clinicians are expected to routinely assess and address suicide risk, existing data provide little guidance regarding the significance of visit-to-visit changes in suicidal ideation.

## Methods

Electronic health records from four large healthcare systems identified patients completing the Patient Health Questionnaire or PHQ9 at outpatient visits. For patients completing two questionnaires within 90 days, health system records and state vital records were used to identify nonfatal and fatal suicide attempts. Analyses examined how changes in PHQ9 item 9 responses between visits predicted suicide attempt or suicide death over 90 days following the second visit.

## Results

Analyses included 430,701 pairs of item 9 responses for 118,696 patients. Among patients reporting thoughts of death or self-harm “nearly every day” at the first visit, risk of suicide attempt after the second visit ranged from approximately 2.0% among those reporting continued thoughts “nearly every day” down to 0.5% among those reporting a

decrease to “not at all.” Among those reporting thoughts of death or self-harm “not at all” at the first visit, risk of suicide attempt following the second visit ranged from approximately 0.2% among those continuing to report such thoughts “not at all” up to 1.2% among those reporting an increase to “nearly every day”.

### Conclusions

Resolution of suicidal ideation between visits does imply a clinically important reduction in short-term risk, but prior suicidal ideation still implies significant residual risk. Onset of suicidal ideation between visits does not imply any special elevation compared to ongoing suicidal ideation. Risk is actually highest for patients repeatedly reporting thoughts of death or self-harm.

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<http://psycnet.apa.org/psycinfo/2017-11254-001/>

### **Rumination, Suicidal Ideation, and Suicide Attempts: A Meta-Analytic Review.**

Rogers, Megan L.; Joiner, Thomas E.

Review of General Psychology

Mar 13 , 2017

<http://dx.doi.org/10.1037/gpr0000101>

Rumination has been implicated as a risk factor for suicidal ideation and attempts, yet the literature to date has not been synthesized. We conducted a meta-analysis of the association between rumination and both suicidal ideation and attempts to consolidate the existing literature ( $k = 29$ ). Results indicated that the relationships between global rumination ( $k = 13$ ; Hedge's  $g = .74$ ,  $p < .001$ , 95% CI [.45, 1.04]), brooding ( $k = 12$ ; Hedge's  $g = .63$ ,  $p < .001$ , 95% CI [.35, .90]), and reflection ( $k = 12$ ; Hedge's  $g = .38$ ,  $p = .002$ , 95% CI [.10, .65]) with suicidal ideation were significant. Associations between global rumination ( $k = 3$ ; Hedge's  $g = .26$ ,  $p < .001$ , 95% CI [.08, .44]) and brooding ( $k = 4$ ; Hedge's  $g = .47$ ,  $p = .004$ , 95% CI [.02, .91]) and suicide attempts were significant, but reflection ( $k = 4$ ; Hedge's  $g = .09$ ,  $p = .646$ , 95% CI [-.54, .72]) was unrelated. However, given the limited studies included in suicide attempt analyses—and the exclusive use of cross-sectional designs and heterogeneity with regard to samples and measures—these parameters should be taken with caution. Generally, age, gender, race/ethnicity, and year of publication were not moderators, and there was little evidence for publication bias across effects, with the exception of the effect of global rumination on suicidal ideation. Several future research directions are discussed.

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<http://scholarworks.sjsu.edu/cgi/viewcontent.cgi?article=1002&context=mcnair>

**From Caution to College: The Effects on Veterans with Self- Reported Trauma Symptoms Sharing their Experiences with the Campus Community.**

Jemerson Diaz

McNair Research Journal  
Vol. 13 , Article 6.  
San Jose State University

Over 900,000 veterans are using benefits for higher education today; the vast majority of them served in the Global War on Terrorism (GWOT). Over 25% of GWOT service members that have been treated by the Veterans Affairs (VA) are reported to have symptoms of posttraumatic stress or posttraumatic stress disorder (PTS/PTSD). PTS/PTSD negatively impacts student veterans' abilities to navigate stressful environments such as college and university settings. The Veterans Embracing Transition (VET) Connect Program at San José State University (SJSU) is designed to connect veterans with non-veterans as peer educators. Five of the 13 VET Connect peer educators (38.5%) who were interviewed reported having symptoms of PTSD. Through their service as peer educators on and off campus, these participants demonstrated signs of healthy coping effects through sharing experiences and educating non-veterans of the struggles related to military culture, service, combat, and loss.

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<http://jamanetwork.com/journals/jamapsychiatry/article-abstract/2609649>

**Association Between Spousal Suicide and Mental, Physical, and Social Health Outcomes: A Longitudinal and Nationwide Register-Based Study.**

Erlangsen A, Runeson B, Bolton JM, Wilcox HC, Forman JL, Krogh J, Shear MK, Nordentoft M, Conwell Y.

JAMA Psychiatry  
2017;74(5):456-464  
doi:10.1001/jamapsychiatry.2017.0226

## Importance

Bereavement after spousal suicide has been linked to mental disorders; however, a comprehensive assessment of the effect of spousal suicide is needed.

## Objective

To determine whether bereavement after spousal suicide was linked to an excessive risk of mental, physical, and social health outcomes when compared with the general population and spouses bereaved by other manners.

## Design, Setting, and Participants

This nationwide, register-based cohort study conducted in Denmark of 6.7 million individuals aged 18 years and older from 1980 to 2014 covered more than 136 million person-years and compared people bereaved by spousal suicide with the general population and people bereaved by other manners of death. Incidence rate ratios were calculated using Poisson regressions while adjusting for sociodemographic characteristics and the presence of mental and physical disorders.

## Main Outcomes and Measures

Mental disorders (any disorder, mood, posttraumatic stress disorder, anxiety, alcohol use disorders, drug use disorders, and self-harm); physical disorders (cancers, diabetes, sleep disorder, cardiovascular diseases, chronic lower respiratory tract diseases, liver cirrhosis, and spinal disc herniation); causes of mortality (all-cause, natural, unintentional, suicide, and homicide); social health outcomes; and health care use.

## Results

The total study population included 3 491 939 men, 4814 of whom were bereaved by spousal suicide, and 3 514 959 women, 10 793 of whom were bereaved by spousal suicide. Spouses bereaved by a partner's suicide had higher risks of developing mental disorders within 5 years of the loss (men: incidence rate ratio, 1.8; 95% CI, 1.6-2.0; women: incidence rate ratio, 1.7; 95% CI, 1.6-1.8) than the general population. Elevated risks for developing physical disorders, such as cirrhosis and sleep disorders, were also noted as well as the use of more municipal support, sick leave benefits, and disability pension funds than the general population. Compared with spouses bereaved by other manners of death, those bereaved by suicide had higher risks for developing mental disorders (men: incidence rate ratio, 1.7; 95% CI, 1.5-1.9; women: incidence rate ratio, 2.0; 95% CI, 1.9-2.2), suicidal behaviors, mortality, and municipal support. Additionally, a higher level of mental health care use was noted.

## Conclusions and Relevance

Exposure to suicide is stressful and affects the bereaved spouse on a broad range of outcomes. The excess risks of mental, physical, and social health outcomes highlight a need for more support directed toward spouses bereaved by suicide.

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<http://onlinelibrary.wiley.com/doi/10.1111/jsr.12543/abstract>

## **Trends and factors associated with insomnia and sleep apnea in all United States military service members from 2005 to 2014.**

John A. Caldwell, Joseph J. Knapik, Harris R. Lieberman

Journal of Sleep Research

First published: 27 April 2017

DOI: 10.1111/jsr.12543

Sleep disorders are a critical issue for the military, as they impact operational readiness, personnel health, wellbeing and health-care costs. The incidence of insomnia and obstructive sleep apnea (OSA) are increasing in the United States civilian population, and rates in military personnel exceed those of civilians. Using a comprehensive database, rates of medical encounters for insomnia and OSA were investigated and their associations with various demographic factors examined in the total US military population [ $1,381,406 \pm 25,123$ , mean  $\pm$  standard deviation (SD) personnel per year] from 2005 to 2014. Encounters for insomnia increased from 16 of 1000 in 2005 to 75 of 1000 in 2014 (372%). Encounters for OSA increased from 44 of 1000 in 2005 to 273 of 1000 in 2014 (517%). Those experiencing the greatest increases in insomnia included women, individuals  $\geq 40$  years of age, blacks, senior enlisted personnel and Army personnel compared to other military services. Those experiencing the greatest rates of OSA included men, individuals  $\geq 40$  years of age, blacks, senior officers and Army personnel. Rates of insomnia and OSA increased linearly over time ( $R^2 = 0.95\text{--}0.99$ ;  $P < 0.01$ ) for every subpopulation except those aged  $< 20$  years. In response to this epidemic-like increase in sleep disorders, their prevention, identification and aggressive treatment should become a health-care priority of the US military.

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<http://onlinelibrary.wiley.com/doi/10.1111/jsr.12537/abstract>

**Sleep complaints associated with wish to die after a suicide crisis—an exploratory study.**

Mirsu-Paun, A., Jaussent, I., Komar, G., Courtet, P. and Lopez-Castroman, J.

Journal of Sleep Research  
First published: 24 April 2017  
DOI: 10.1111/jsr.12537

The present study explores whether sleep concerns are associated with wish to die throughout a 1-month time interval following a suicide crisis. Sixty-eight patients admitted to the emergency department of a general or psychiatric hospital were enrolled. Sleep difficulties were assessed using the Insomnia Severity Index (ISI), the Epworth Sleepiness Scale, self-reported satisfaction with sleep and time in bed. Suicidal ideation was assessed through the presence of a wish to die at 1 month following a suicide crisis. Co-existing psychiatric diagnoses were assessed using the French version of the Mini International Neuropsychiatric Interview (MINI). Potential covariate factors such as personal and family history of suicidal behaviours and sociodemographic variables were accounted for. We found that wish to die was associated significantly with insomnia severity, low satisfaction with sleep and sleep duration 1 month after the suicide crisis, even after controlling for covariates. This exploratory study is limited by a small sample size, and results cannot be generalized to patients with psychotic disorders or alcohol use disorders. Also, other factors related potentially to suicidal ideation, such as depression severity, stressful events or levels of family support, were not accounted for. However, overall our study supports the assessment of sleep complaints as a potential indicator of suicide risk in the weeks that follow a suicide crisis.

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<http://www.sciencedirect.com/science/article/pii/S0304394017303439>

**Differentiation chronic post traumatic stress disorder patients from healthy subjects using objective and subjective sleep-related parameters.**

Masoud Tahmasian, Hamidreza Jamalabadi, Mina Abedini, Mohammad R. Ghadami, Amir A. Sepehry, David C. Knight, Habibolah Khazaie

Sleep disturbance is common in chronic post-traumatic stress disorder (PTSD). However, prior work has demonstrated that there are inconsistencies between subjective and objective assessments of sleep disturbance in PTSD. Therefore, we investigated whether subjective or objective sleep assessment has greater clinical utility to differentiate PTSD patients from healthy subjects. Further, we evaluated whether the combination of subjective and objective methods improves the accuracy of classification into patient versus healthy groups, which has important diagnostic implications. We recruited 32 chronic war-induced PTSD patients and 32 age- and gender-matched healthy subjects to participate in this study. Subjective (i.e. from three self-reported sleep questionnaires) and objective sleep-related data (i.e. from actigraphy scores) were collected from each participant. Subjective, objective, and combined (subjective and objective) sleep data were then analyzed using support vector machine classification. The classification accuracy, sensitivity, and specificity for subjective variables were 89.2%, 89.3%, and 89%, respectively. The classification accuracy, sensitivity, and specificity for objective variables were 65%, 62.3%, and 67.8%, respectively. The classification accuracy, sensitivity, and specificity for the aggregate variables (combination of subjective and objective variables) were 91.6%, 93.0%, and 90.3%, respectively. Our findings indicate that classification accuracy using subjective measurements is superior to objective measurements and the combination of both assessments appears to improve the classification accuracy for differentiating PTSD patients from healthy individuals.

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<http://onlinelibrary.wiley.com/doi/10.1002/da.22623/full>

### **Between-visit changes in suicidal ideation and risk of subsequent suicide attempt.**

Gregory E. Simon, Susan M. Shortreed, Eric Johnson, Arne Beck, Karen J. Coleman, Rebecca C. Rossom, Ursula S. Whiteside, Belinda H. Operskalski and Robert B. Penfold

Depression and Anxiety

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## Background

While clinicians are expected to routinely assess and address suicide risk, existing data provide little guidance regarding the significance of visit-to-visit changes in suicidal ideation.

## Methods

Electronic health records from four large healthcare systems identified patients completing the Patient Health Questionnaire or PHQ9 at outpatient visits. For patients completing two questionnaires within 90 days, health system records and state vital records were used to identify nonfatal and fatal suicide attempts. Analyses examined how changes in PHQ9 item 9 responses between visits predicted suicide attempt or suicide death over 90 days following the second visit.

## Results

Analyses included 430,701 pairs of item 9 responses for 118,696 patients. Among patients reporting thoughts of death or self-harm “nearly every day” at the first visit, risk of suicide attempt after the second visit ranged from approximately 2.0% among those reporting continued thoughts “nearly every day” down to 0.5% among those reporting a decrease to “not at all.” Among those reporting thoughts of death or self-harm “not at all” at the first visit, risk of suicide attempt following the second visit ranged from approximately 0.2% among those continuing to report such thoughts “not at all” up to 1.2% among those reporting an increase to “nearly every day”.

## Conclusions

Resolution of suicidal ideation between visits does imply a clinically important reduction in short-term risk, but prior suicidal ideation still implies significant residual risk. Onset of suicidal ideation between visits does not imply any special elevation compared to ongoing suicidal ideation. Risk is actually highest for patients repeatedly reporting thoughts of death or self-harm.

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<https://www.cambridge.org/core/journals/psychological-medicine/article/childhood-adversity-adult-stress-and-the-risk-of-major-depression-or-generalized-anxiety-disorder-in-us-soldiers-a-test-of-the-stress-sensitization-hypothesis/457AE85BED490C98089E428D8CEFC81F>

**Childhood adversity, adult stress, and the risk of major depression or generalized anxiety disorder in US soldiers: a test of the stress sensitization hypothesis.**

G. Bandoli, L. Campbell-Sills, R. C. Kessler, S. G. Heeringa, M. K. Nock, A. J. Rosellini, N. A. Sampson, M. Schoenbaum, R. J. Ursano, M. B. Stein

Psychological Medicine

Published online: 26 April 2017, pp. 1-14

DOI: <https://doi.org/10.1017/S0033291717001064>

The stress sensitization theory hypothesizes that individuals exposed to childhood adversity will be more vulnerable to mental disorders from proximal stressors. We aimed to test this theory with respect to risk of 30-day major depressive episode (MDE) and generalized anxiety disorder (GAD) among new US Army soldiers.

The sample consisted of 30 436 new soldier recruits in the Army Study to Assess Risk and Resilience (Army STARRS). Generalized linear models were constructed, and additive interactions between childhood maltreatment profiles and level of 12-month stressful experiences on the risk of 30-day MDE and GAD were analyzed.

Stress sensitization was observed in models of past 30-day MDE ( $\chi^2_8 = 17.6$ ,  $p = 0.025$ ) and GAD ( $\chi^2_8 = 26.8$ ,  $p = 0.001$ ). This sensitization only occurred at high (3+) levels of reported 12-month stressful experiences. In pairwise comparisons for the risk of 30-day MDE, the risk difference between 3+ stressful experiences and no stressful experiences was significantly greater for all maltreatment profiles relative to No Maltreatment. Similar results were found with the risk for 30-day GAD with the exception of the risk difference for Episodic Emotional and Sexual Abuse, which did not differ statistically from No Maltreatment.

New soldiers are at an increased risk of 30-day MDE or GAD following recent stressful experiences if they were exposed to childhood maltreatment. Particularly in the military with an abundance of unique stressors, attempts to identify this population and improve stress management may be useful in the effort to reduce the risk of mental disorders.

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<http://www.ingentaconnect.com/contentone/fyesit/fyesit/2017/00000029/00000001/art00004>

**Identifying the Camouflage: Uncovering and Supporting the Transition Experiences of Military and Veteran Students.**

Williams-Klotz, Denise N.; Gansemer-Topf, Ann M.

Journal of The First-Year Experience & Students in Transition  
Volume 29, Number 1, Spring 2017, pp. 83-98(16)

This study summarizes the qualitative findings from a multi-institutional study about the college transition experiences of military and veteran students, specifically students' articulation of their needs. Findings reveal (a) a lack of in-processing, (b) need for community, and (c) institutional invisibility. Using the Student Veteran Transition Model developed by Livingston, Havice, Cawthon, and Flemming (2011) as a guide, four recommendations for institutional practice are provided.

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[https://www.rand.org/pubs/research\\_reports/RR1756.html](https://www.rand.org/pubs/research_reports/RR1756.html)

### **Stress and Dissatisfaction in the Air Force's Remotely Piloted Aircraft Community.**

Chaitra Hardison, Eyal Aharoni, Christopher Larson, Steven Trochlil, Alexander C. Hou

RAND Corporation  
Paperback ISBN/EAN: 9780833096890  
DOI: 10.7249/RR1756  
Document Number: RR-1756-AF  
Year: 2017

The demand for the Air Force's remotely piloted aircraft (RPAs) has exploded in the past few years. Even though the Air Force has increased its number of RPA units, it has been unable to keep up with this demand. This problem is exacerbated by an inability to fill the ranks of RPA units. The result is that RPA personnel work inordinately long hours, and the RPA mission is more demanding in terms of flying time than the typical traditionally manned aircraft mission. Air Force Special Operations Command leadership recognized the need to address RPA workforce issues and asked RAND Project AIR FORCE to identify issues potentially affecting the RPA force and recommend ways to mitigate them. Researchers conducted focus groups with RPA personnel, finding that while crews view their missions as important, they feel stressed due to heavy workloads, undermanning, shiftwork, lack of training, and undesirable base locations. About one-third of those in the groups showed signs of burnout, a feeling that typically occurs after prolonged periods of stress. Researchers recommend

reducing personnel stress by reducing workload and instituting a "combat-to-dwell" policy that allows personnel time to attend to family and administrative needs and mitigates combat exposure.

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<https://link.springer.com/article/10.1007/s40675-017-0071-6>

## **Shift Work: Disrupted Circadian Rhythms and Sleep—Implications for Health and Well-being.**

Stephen M. James, Kimberly A. Honn, Shobhan Gaddameedhi, Hans P.A. Van Dongen

Current Sleep Medicine Reports  
First Online: 27 April 2017  
DOI: 10.1007/s40675-017-0071-6

### **Purpose of Review**

Our 24/7 society is dependent on shift work, despite mounting evidence for negative health outcomes from sleep displacement due to shift work. This paper reviews short- and long-term health consequences of sleep displacement and circadian misalignment due to shift work.

### **Recent Findings**

We focus on four broad health domains: metabolic health, risk of cancer, cardiovascular health, and mental health. Circadian misalignment affects these domains by inducing sleep deficiency, sympathovagal and hormonal imbalance, inflammation, impaired glucose metabolism, and dysregulated cell cycles. This leads to a range of medical conditions, including obesity, metabolic syndrome, type II diabetes, gastrointestinal dysfunction, compromised immune function, cardiovascular disease, excessive sleepiness, mood and social disorders, and increased cancer risk.

### **Summary**

Interactions of biological disturbances with behavioral and societal factors shape the effects of shift work on health and well-being. Research is needed to better understand the underlying mechanisms and drive the development of countermeasures.

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<https://www.ncbi.nlm.nih.gov/pubmed/28410014>

J Womens Health (Larchmt). 2017 Apr;26(4):338-344. doi: 10.1089/jwh.2014.5130.  
Epub 2017 Feb 16

## **Gender Differences in Posttraumatic Stress Disorder Among U.S. Navy Healthcare Personnel.**

MacGregor AJ, Clouser MC, Mayo JA, Galarnau MR

### **BACKGROUND:**

The role of women in the U.S. military has changed markedly over the course of 20th- and 21st-century conflicts. Although women frequently occupy healthcare positions in the military, little is known about gender differences in posttraumatic stress disorder (PTSD) within this occupational subgroup.

### **MATERIALS AND METHODS:**

A total of 4275 (667 women and 3608 men) U.S. Navy healthcare personnel supporting military operations in Iraq and Afghanistan were identified from electronic deployment records. Data from Post-Deployment Health Assessments were abstracted to identify PTSD screen positives, and to adjust for self-reported combat exposure and other deployment experiences.

### **RESULTS:**

The prevalence of PTSD screen positive in the sample was 8.2% ( $n = 351/4275$ ). After adjusting for combat exposure, previous psychiatric history, and demographics, women had significantly higher odds of screening positive for PTSD than did men (odds ratio = 1.99, 95% confidence interval 1.34-2.96). Interactions between gender and combat exposure, and between gender and previous psychiatric history were not statistically significant.

### **CONCLUSIONS:**

This is one of the first studies to examine gender differences in PTSD among military healthcare personnel. Future research should account for additional stressors, such as long work hours, disrupted sleep patterns, and number of casualties treated. As women are further integrated into military occupations that may lead to different exposures, knowledge of gender differences in the manifestation of PTSD is paramount for prevention and treatment purposes.

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<https://www.ncbi.nlm.nih.gov/pubmed/27794690>

Am J Psychiatry. 2017 Feb 1;174(2):125-134. doi: 10.1176/appi.ajp.2016.15121549.  
Epub 2016 Oct 31

### **Neural Substrates of Overgeneralized Conditioned Fear in PTSD.**

Kaczurkin AN, Burton PC, Chazin SM, Manbeck AB, Espensen-Sturges T, Cooper SE, Sponheim SR, Lissek S

#### **OBJECTIVE:**

Heightened generalization of fear from an aversively reinforced conditioned stimulus (CS+, a conditioned danger cue) to resembling stimuli is widely accepted as a pathogenic marker of posttraumatic stress disorder (PTSD). Indeed, a distress response to benign stimuli that "resemble" aspects of the trauma is a central feature of the disorder. To date, the link between overgeneralization of conditioned fear and PTSD derives largely from clinical observations, with limited empirical work on the subject. This represents the first effort to examine behavioral and brain indices of generalized conditioned fear in PTSD using systematic methods developed in animals known as generalization gradients: the gradual decline in conditioned responding as the presented stimulus gradually differentiates from CS+.

#### **METHOD:**

Gradients of conditioned fear generalization were assessed using functional MRI and behavioral measures in U.S. combat veterans who served in Iraq or Afghanistan and had PTSD (N=26), subthreshold PTSD (N=19), or no PTSD (referred to as trauma control subjects) (N=17). Presented stimuli included rings of graded size, with extreme sizes serving as CS+ (paired with shock) and as a nonreinforced conditioned stimulus (CS-, a conditioned safety cue), and with intermediate sizes forming a continuum of similarity between CS+ and CS-. Generalization gradients were assessed as response slopes from CS+, through intermediate ring sizes, to CS-, with less steep slopes indicative of stronger generalization.

#### **RESULTS:**

Relative to trauma control subjects, PTSD patients showed stronger conditioned generalization, as evidenced by less steep generalization gradients in both behavioral risk ratings and brain responses in the left and right anterior insula, left ventral hippocampus, dorsolateral and dorsomedial prefrontal cortex, and caudate nucleus. Severity of PTSD symptoms across the three study groups was positively correlated with levels of generalization at two such loci: the right anterior insula and left ventral



hippocampus.

#### CONCLUSIONS:

The results point to evidence of brain-based markers of overgeneralized fear conditioning related to PTSD. These findings provide further understanding of a central yet understudied symptom of trauma-related psychopathology.

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<http://onlinelibrary.wiley.com/doi/10.1002/da.22640/full>

### **Digital technology and clinical decision making in depression treatment: Current findings and future opportunities.**

Hallgren KA, Bauer AM, Atkins DC

Depression and Anxiety

Version of Record online: 28 APR 2017

DOI: 10.1002/da.22640

Clinical decision making encompasses a broad set of processes that contribute to the effectiveness of depression treatments. There is emerging interest in using digital technologies to support effective and efficient clinical decision making. In this paper, we provide "snapshots" of research and current directions on ways that digital technologies can support clinical decision making in depression treatment. Practical facets of clinical decision making are reviewed, then research, design, and implementation opportunities where technology can potentially enhance clinical decision making are outlined. Discussions of these opportunities are organized around three established movements designed to enhance clinical decision making for depression treatment, including measurement-based care, integrated care, and personalized medicine. Research, design, and implementation efforts may support clinical decision making for depression by (1) improving tools to incorporate depression symptom data into existing electronic health record systems, (2) enhancing measurement of treatment fidelity and treatment processes, (3) harnessing smartphone and biosensor data to inform clinical decision making, (4) enhancing tools that support communication and care coordination between patients and providers and within provider teams, and (5) leveraging treatment and outcome data from electronic health record systems to support personalized depression treatment. The current climate of rapid changes in both healthcare and digital technologies facilitates an urgent need for research, design, and implementation of digital technologies that explicitly support clinical decision making. Ensuring that such

tools are efficient, effective, and usable in frontline treatment settings will be essential for their success and will require engagement of stakeholders from multiple domains.

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## Links of Interest

How to stay the course for good mental health

<https://health.mil/News/Articles/2017/05/02/How-to-stay-the-course-for-good-mental-health>

Medal of Honor recipient credits military medicine for helping him save lives on, off battlefield

<https://health.mil/News/Articles/2017/05/03/Medal-of-Honor-recipient-credits-military-medicine-for-helping-him-save-lives-on-off-battlefield>

Genes May Govern Your Risk for PTSD]

[https://medlineplus.gov/news/fullstory\\_164951.html](https://medlineplus.gov/news/fullstory_164951.html)

Psychiatric Scars of Wartime Brain Injury May Linger for Years

[https://medlineplus.gov/news/fullstory\\_165107.html](https://medlineplus.gov/news/fullstory_165107.html)

Opioid Use by Iraq, Afghanistan War Vets Mirrors Rest of U.S.: Study

[https://medlineplus.gov/news/fullstory\\_164986.html](https://medlineplus.gov/news/fullstory_164986.html)

Preventing Veteran Suicide: The Critical Role of Community-Based Prevention (RAND testimony)

<https://www.rand.org/pubs/testimonies/CT474.html>

National mental-health survey finds widespread ignorance, stigma

<https://www.sciencedaily.com/releases/2017/04/170427112223.htm>

Personalized psychiatry matches therapy to specific patients with depression

<https://www.sciencedaily.com/releases/2017/05/170501112534.htm>

There were 14,900 sex assaults in the US military last year, new Pentagon data show

<http://www.militarytimes.com/articles/military-sexual-assault>

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**Resource of the Week: [DoD Releases FY 2016 Annual Report on Sexual Assault in the Military](#)**

This year's report shows fewer Service members are experiencing the crime and a greater proportion of Service members are reporting sexual assault than ever before. The new data suggests about one in three Service members chose to report their sexual assault last year, up from about one in 14 estimated ten years ago.

[Direct link to report](#) (PDF).



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