Research Update -- August 2, 2018

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● Comprehensive analysis of the predictors of neurobehavioral symptom reporting in veterans.
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● Resource of the Week: Assessing the Needs of Soldiers and Their Families at the Garrison Level

Alicia A. Swan, Jeremy T. Nelson, Terri K. Pogoda, Megan E. Amuan, Faith W. Akin & Mary Jo Pugh

Brain Injury
Published online: 19 Jul 2018
https://doi.org/10.1080/02699052.2018.1495340

Objectives:
To describe the prevalence of sensory dysfunction (i.e. auditory, visual, vestibular, chemosensory and multiple sensory problems) and explore associations with traumatic brain injury (TBI) severity and injury mechanism among deployed Post-9/11 Veterans.

Methods:
This retrospective cohort analysis used Departments of Defense and Veterans Affairs diagnostic codes and administrative data.

Results:
Among the 570,248 Veterans in this cohort, almost 23% had at least one diagnosis of sensory dysfunction. In the multinomial regression analysis, the odds of all types of sensory dysfunction were greater among those with any TBI relative to those with no TBI. The odds for auditory or multisensory problems were higher among those that indicated exposure to blast. In particular, exposure to quaternary blast injury (e.g. crush, respiratory and burn injuries) was associated with increased odds for auditory, visual, vestibular and multisensory problems.

Conclusions:
Sensory problems affect a substantial number of deployed Post-9/11 Veterans and are more common among those with TBI or with exposure to deployment-related blast exposure. Because sensory problems profoundly impact quality of life, their identification and enhanced education and therapy are vital tools to improve prognosis for these relatively young Veterans.

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Mental health care utilization and stigma in the military: comparison of Asian Americans to other racial groups.

Kasi M. Chu, Shawn M. S. Garcia, Hela Koka, Gary H. Wynn & Tzu-Cheg Kao

Ethnicity and Health
Published online: 19 Jul 2018
https://doi.org/10.1080/13557858.2018.1494823

Objective:
To investigate race disparities in the US Military among Asian, White, Black, Native American and Other, seeking mental health care in the context of stigma defined by perceived damage to career.

Design:
Using 2008 survey data taken from US military personnel, mental disorders including depression, generalized anxiety disorder, suicidal ideation, suicidal attempt and post-traumatic stress disorder serious psychological distress (as defined in Kessler – 6), as well as seeking mental health care in past 12 months and stigma were dichotomized and weighted logistic regression models were used.

Results:
A significant race disparity existed in seeking mental health care when data were stratified by stigma and depression adjusted for demographic variables. Compared to Asians with depression that perceived stigma, Blacks were more likely to seek mental health care (OR with 95% confidence interval for Asians: 3.97[2.21, 7.15], Black: 9.25[6.02, 14.20], p < .005) adjusting for demographic variables. Similar results held for other mental disorders with the exception of suicide attempts and serious psychological distress. Compared to Asians with serious psychological distress who did not perceive stigma, only Whites were more likely to seek mental health care (OR for Asians: 3.27[2.15, 4.97], White: 6.47[4.60, 9.11], p < .005). Among those without a mental health disorder, regardless of the presence or absence of perceived stigma, there was no disparity between any two race groups in seeking mental health care.

Conclusion:
Among individuals having perceived stigma with mental health disorders, Asian
American active-duty personnel may be less likely to use mental health care when compared to non-Asian peers.

[Text link to source]

Heart Rate Variability and Cognitive Bias Feedback Interventions to Prevent Post-deployment PTSD: Results from a Randomized Controlled Trial.

Jeffrey M Pyne, CAPT. (retired) USN.  Joseph I Constans  John T Nanney Mark D Wiederhold  Douglas P Gibson  Timothy Kimbrell  Teresa L Kramer  Jeffery A Pitcock  Xiaotong Han  D Keith Williams  Don Chartrand  Richard N Gevirtz  James Spira  Brenda K Wiederhold  Rollin McCraty  Thomas R McCune

Military Medicine
Published: 18 July 2018
https://doi.org/10.1093/milmed/usy171

Introduction
There is a long history of pre-deployment PTSD prevention efforts in the military and effective pre-deployment strategies to prevent post-deployment PTSD are still needed.

Materials and Methods
This randomized controlled trial included three arms: heart rate variability biofeedback (HRVB), cognitive bias modification for interpretation (CBM-I), and control. The hypothesis was that pre-deployment resilience training would result in lower post-deployment PTSD symptoms compared with control. Army National Guard soldiers (n = 342) were enrolled in the Warriors Achieving Resilience (WAR) study and analyzed. The outcome was PTSD symptom severity using the PTSD Checklist – Military version (PCL) measured at pre-deployment, 3- and 12-month post-deployment. Due to the repeated measures for each participant and cluster randomization at the company level, generalized linear mixed models were used for the analysis. This study was approved by the Army Human Research Protection Office, Central Arkansas Veterans Healthcare System Institutional Review Board (IRB), and Southeast Louisiana Veterans Health Care System IRB.

Results
Overall, there was no significant intervention effect. However, there were significant
intervention effects for subgroups of soldiers. For example, at 3-months post-deployment, the HRVB arm had significantly lower PCL scores than the control arm for soldiers with no previous combat zone exposure who were age 30 and older and for soldiers with previous combat zone exposure who were 45 and older (unadjusted effect size −0.97 and −1.03, respectively). A significant difference between the CBM-I and control arms was found for soldiers without previous combat zone exposure between ages 23 and 42 (unadjusted effect size −0.41). Similarly, at 12-months post-deployment, the HRVB arm had significantly lower PCL scores in older soldiers.

Conclusion
Pre-deployment resilience training was acceptable and feasible and resulted in lower post-deployment PTSD symptom scores in subgroups of older soldiers compared with controls. Strengths of the study included cluster randomization at the company level, use of iPod device to deliver the resilience intervention throughout the deployment cycle, and minimal disruption of pre-deployment training by using self-paced resilience training. Weaknesses included self-report app use, study personnel not able to contact soldiers during deployment, and in general a low level of PTSD symptom severity throughout the study. In future studies, it would important for the study team and/or military personnel implementing the resilience training to be in frequent contact with participants to ensure proper use of the resilience training apps.

https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2688429

Functional Connectivities in the Brain That Mediate the Association Between Depressive Problems and Sleep Quality.

Cheng W, Rolls ET, Ruan H, Feng J.

JAMA Psychiatry
Published online July 25, 2018

Key Points
Question
Is it possible to identify brain functional connectivities that mediate the association of depressive symptoms with poor sleep quality and advance understanding of the differences in brain functional connectivity in individuals with higher scores on the Depressive Problems scale?
Findings
In 1017 participants in the Human Connectome Project, brain areas with increased functional connectivity associated with both sleep and Depressive Problems scores included the lateral orbitofrontal cortex, dorsolateral prefrontal cortex, anterior and posterior cingulate cortices, insula, parahippocampal gyrus, hippocampus, amygdala, temporal cortex, and precuneus. A mediation analysis showed that these functional connectivities underlie the association of depressive problem scores with poor sleep quality.

Meaning
In this study, the increased functional connectivity between these brain regions provides a neural basis for the association of depression with poor sleep quality; in this general population from the United States that was not selected for depression, Depressive Problems scores were correlated with functional connectivities in the brain, including the lateral orbitofrontal cortex, which has implications for the treatment of depression and poor sleep quality.

Abstract
Importance
Depression is associated with poor sleep quality. Understanding the neural connectivity that underlies both conditions and mediates the association between them is likely to lead to better-directed treatments for depression and associated sleep problems.

Objective
To identify the brain areas that mediate the association of depressive symptoms with poor sleep quality and advance understanding of the differences in brain connectivity in depression.

Design, Setting, and Participants
This study collected data from participants in the Human Connectome Project using the Adult Self-report of Depressive Problems portion of the Achenbach Adult Self-Report for Ages 18-59, a survey of self-reported sleep quality, and resting-state functional magnetic resonance imaging. Cross-validation of the sleep findings was conducted in 8718 participants from the UK Biobank.

Main Outcomes and Measures

Results
A total of 1017 participants from the Human Connectome Project (of whom 546 [53.7%] were female; age range, 22 to 35 years) drawn from a general population in the United States were included. The Depressive Problems score was positively correlated with poor
sleep quality ($r = 0.371; P < .001$). A total of 162 functional connectivity links involving areas associated with sleep, such as the precuneus, anterior cingulate cortex, and the lateral orbitofrontal cortex, were identified. Of these links, 39 were also associated with the Depressive Problems scores. The brain areas with increased functional connectivity associated with both sleep and Depressive Problems scores included the lateral orbitofrontal cortex, dorsolateral prefrontal cortex, anterior and posterior cingulate cortices, insula, parahippocampal gyrus, hippocampus, amygdala, temporal cortex, and precuneus. A mediation analysis showed that these functional connectivities underlie the association of the Depressive Problems score with poor sleep quality ($\beta = 0.0139; P < .001$).

Conclusions and Relevance
The implication of these findings is that the increased functional connectivity between these brain regions provides a neural basis for the association between depression and poor sleep quality. An important finding was that the Depressive Problems scores in this general population were correlated with functional connectivities between areas, including the lateral orbitofrontal cortex, cingulate cortex, precuneus, angular gyrus, and temporal cortex. The findings have implications for the treatment of depression and poor sleep quality.

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**REM sleep and safety signal learning in posttraumatic stress disorder: A preliminary study in military veterans.**

Laura D. Straus, Sonya B. Norman, Victoria B. Risbrough, Dean T. Acheson, Sean P.A. Drummond

Neurobiology of Stress
Available online 20 July 2018
https://doi.org/10.1016/j.ynstr.2018.07.001

Background
Posttraumatic Stress Disorder (PTSD) is associated with a number of negative physical and mental health consequences. Fear conditioning plays an important mechanistic role in PTSD, and PTSD patients also show deficits in safety signal learning. Sleep, particularly REM sleep, is linked to improved safety learning and extinction processes in animal models and healthy humans. No studies have examined the link between REM sleep and safety signal learning or extinction memory in clinical populations.

Methods
This study examined the relationship between REM sleep, safety signal learning, and
extinction processes in veterans with PTSD (n = 13). Patients' overnight sleep was characterized in the laboratory via polysomnography (PSG). The next day, participants underwent a fear conditioning paradigm during which they acquired fear toward a visual cue. This testing session also included a visual cue that became a safety signal (CS-). Following conditioning, the veterans' sleep was monitored overnight again, after which they underwent extinction training. Following a third night of sleep, extinction recall and safety recall were tested. Bivariate correlations examined the relationship between the slope of safety signal learning and subsequent REM sleep, as well as the relationship between REM sleep and subsequent extinction recall and safety recall on the last day of testing.

Results
Veterans learned to differentiate the CS+ and the CS- on the first day of testing. Veterans who underwent safety learning more quickly on the first day of testing showed more efficient REM sleep that night (r = .607, p = .028). On the second day of testing, the patients successfully underwent extinction learning. Patients with a higher percentage of REM sleep on the last night of the study showed more safety recall early on the last day of testing (r = .688, p = .009).

Conclusion
To our knowledge, this was the first study to examine the relationship between objective sleep and fear-potentiated startle performance in veterans with PTSD. Study methods were well tolerated by participants, supporting feasibility of the experimental design. Results indicated REM sleep was associated with both initial safety learning and subsequent safety recall. Taken together with previous studies in healthy controls, these preliminary results provide additional evidence suggesting REM sleep could play a mechanistic role in the maintenance of PTSD and thus identify a modifiable biological process to target in treatment of PTSD. These findings should be replicated in larger samples.


Worse baseline executive functioning is associated with dropout and poorer response to trauma-focused treatment for veterans with PTSD and comorbid traumatic brain injury.

Laura D. Crocker, Sarah M. Jurick, Kelsey R. Thomas, Amber V. Keller, ... Amy J. Jak

Behaviour Research and Therapy
Volume 108, September 2018, Pages 68-77
https://doi.org/10.1016/j.brat.2018.07.004
Highlights
• Individuals who dropped out of PTSD treatment had worse baseline executive function.
• Worse baseline executive function was associated with reduced treatment response.
• Those with worse cognitive flexibility didn't benefit as much from standard therapy.
• Adding cognitive rehabilitation strategies to standard treatment improved outcomes.

Abstract
Although trauma-focused treatment, including Cognitive Processing Therapy (CPT), effectively reduces PTSD symptoms, treatment dropout, nonresponse, and relapse are substantial. Executive functioning (EF) is essential to engage the cognitive skills involved in CPT (e.g., inhibiting/evaluating distorted thoughts, flexibly generating alternative thoughts). It was hypothesized that worse baseline EF would be associated with reduced CPT completion and responsivity. Seventy-four Iraq/Afghanistan-era Veterans with PTSD and history of mild-to-moderate traumatic brain injury were randomized to either standard CPT or modified CPT that included cognitive rehabilitation strategies (SMART-CPT). Those who dropped out of treatment prematurely performed more poorly on EF tests at baseline than treatment completers. Worse baseline performances on EF tests of working memory, inhibition, and inhibition/switching were associated with poorer response to CPT (less reduction in PTSD symptoms). In addition, a three-way interaction indicated that individuals with worse baseline cognitive flexibility did not benefit as much from standard CPT but demonstrated significant PTSD symptom improvement in the SMART-CPT condition, comparable to those with better baseline cognitive flexibility. Modifying CPT to accommodate executive dysfunction may boost treatment effectiveness and allow Veterans to fully engage in and benefit more from components of CPT (e.g., cognitive restructuring).


Network models of posttraumatic stress symptoms across trauma types.

Natasha Benfer, Joseph R. Bardeen, Ian Cero, Lindsay B. Kramer, ... Frank W. Weathers

Journal of Anxiety Disorders
Volume 58, August 2018, Pages 70-77
https://doi.org/10.1016/j.janxdis.2018.07.004

Highlights
• Network analysis was used to examine posttraumatic stress (PTS) symptoms as a function of trauma type.
• Three trauma types examined: motor vehicle accident, sexual assault, and sudden death.
• Sexual assault network was most consistent with DSM-5 conceptualization of PTSD.
Abstract
Evidence suggests that posttraumatic stress (PTS) disorder (PTSD) symptom presentations may vary as a function of index trauma type. Network analysis was employed in the present study to examine differences in PTS symptom centrality (i.e., the relative influence of a symptom on the network), and PTS symptom associations across three trauma types: motor vehicle accident (MVA), sexual assault (SA), and sudden accidental/violent death of a loved one (SAD). The final sample comprised 554 female undergraduates who had experienced a MVA (n = 226), SA (n = 222), or SAD (n = 106) per Diagnostic Statistical Manual—Fifth Edition (DSM-5) criteria. Within the pooled network, anhedonia and dysphoria emerged as the most central symptoms, while trauma-related amnesia was the least central. The SA network was largely consistent with the DSM-5 conceptualization of PTSD. In contrast, the SAD network was the least consistent with the DSM-5 conceptualization of PTSD, and centrality estimates for the SAD network were inconsistent with the MVA and SA networks. Findings of the current study suggest a need to consider index trauma type as an important factor in the ontology of PTSD. Findings also add to the ongoing discussions about the suitability of SAD as a PTSD-relevant trauma type and about the importance of trauma-related amnesia as a PTSD symptom.


Internet Use and Technology-Related Attitudes of Veterans and Informal Caregivers of Veterans.

Wei Duan-Porter, Courtney H. Van Houtven, Elizabeth P. Mahanna, Jennifer G. Chapman, Karen M. Stechuchak, Cynthia J. Coffman, and Susan Nicole Hastings

Telemedicine and e-Health
2018 24:7, 471-480
https://doi.org/10.1089/tmj.2017.0015

Background:
Healthcare systems are interested in technology-enhanced interventions to improve patient access and outcomes. However, there is uncertainty about feasibility and acceptability for groups who may benefit but are at risk for disparities in technology use. Thus, we sought to describe characteristics of Internet use and technology-related attitudes for two such
groups: (1) Veterans with multi-morbidity and high acute care utilization and (2) informal caregivers of Veterans with substantial care needs at home.

Materials and Methods:
We used survey data from two ongoing trials, for 423 Veteran and 169 caregiver participants, respectively. Questions examined Internet use in the past year, willingness to communicate via videoconferencing, and comfort with new technology devices.

Results:
Most participants used Internet in the past year (81% of Veterans, 82% of caregivers); the majority of users (83% of Veterans, 92% of caregivers) accessed Internet at least a few times a week, and used a private laptop or computer (81% of Veterans, 89% of caregivers). Most were willing to use videoconferencing via private devices (77–83%). A majority of participants were comfortable attempting to use new devices with in-person assistance (80% of Veterans, 85% of caregivers), whereas lower proportions were comfortable “on your own” (58–59% for Veterans and caregivers). Internet use was associated with comfort with new technology devices (odds ratio 2.76, 95% confidence interval 1.70–4.53).

Conclusions:
Findings suggest that technology-enhanced healthcare interventions are feasible and acceptable for Veterans with multi-morbidity and high healthcare utilization, and informal caregivers of Veterans. In-person assistance may be important for those with no recent Internet use.

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Recent Advances in Delivering Mental Health Treatment via Video to Home.

Terri L. Fletcher, Julianna B. Hogan, Fallon Keegan…

Current Psychiatry Reports
August 2018, 20:56
https://doi.org/10.1007/s11920-018-0922-y

Purpose of Review
Telemental health has rapidly evolved as technology and policy advances have allowed new and innovative approaches, including the remote delivery of services directly to patients’ homes. This review examined the literature on video to home (VTH) delivery of mental health services to synthesize information regarding (1) the comparative clinical effectiveness of VTH to in-person mental health treatment, (2) impact of VTH on treatment...
adherence, (3) patient and provider satisfaction with VTH, (4) cost effectiveness of VTH, and (5) clinical considerations for VTH use.

Recent Findings
Clinical effectiveness, treatment adherence, and patient satisfaction outcomes are comparable for VTH and in-person delivery of psychotherapy and psychiatric consultation services. Clinical applications for VTH have expanded in an effort to provide mental health care to difficult to reach, underserved populations. VTH is less costly than in-person care when assuming that patients could employ existing personal technologies.

Summary
VTH delivery offers a safe and effective option for increasing access to mental health care for patients who face logistical and stigma-related barriers to receiving in-person treatment. VTH should be routinely offered to patients as an option for receiving care, maximizing patient choice, and coordination of care.


Worse baseline executive functioning is associated with dropout and poorer response to trauma-focused treatment for veterans with PTSD and comorbid traumatic brain injury.

Laura D. Crocker, Sarah M. Jurick, Kelsey R. Thomas, Amber V. Keller, ... Amy J. Jak

Behaviour Research and Therapy
Volume 108, September 2018, Pages 68-77
https://doi.org/10.1016/j.brat.2018.07.004

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completion and responsivity. Seventy-four Iraq/Afghanistan-era Veterans with PTSD and history of mild-to-moderate traumatic brain injury were randomized to either standard CPT or modified CPT that included cognitive rehabilitation strategies (SMART-CPT). Those who dropped out of treatment prematurely performed more poorly on EF tests at baseline than treatment completers. Worse baseline performances on EF tests of working memory, inhibition, and inhibition/switching were associated with poorer response to CPT (less reduction in PTSD symptoms). In addition, a three-way interaction indicated that individuals with worse baseline cognitive flexibility did not benefit as much from standard CPT but demonstrated significant PTSD symptom improvement in the SMART-CPT condition, comparable to those with better baseline cognitive flexibility. Modifying CPT to accommodate executive dysfunction may boost treatment effectiveness and allow Veterans to fully engage in and benefit more from components of CPT (e.g., cognitive restructuring).


PTSD is associated with emotional eating among veterans seeking treatment for overweight/obesity.

Lindsey M.Dorflinger, Robin M.Masheb

Eating Behaviors
Volume 31, December 2018, Pages 8-11
https://doi.org/10.1016/j.eatbeh.2018.07.005

Highlights
• Veterans with obesity and probable PTSD report frequent emotional eating.
• PTSD symptom severity is associated with more frequent emotional eating.
• Emotional eating may impact obesity treatment outcomes among veterans with PTSD.

Abstract
Both obesity and post-traumatic stress disorder (PTSD) are common among veterans. Veterans with PTSD are at higher risk for obesity and have poorer outcomes in obesity treatment. We examined emotional eating among veterans presenting for obesity treatment, and its relationship with PTSD. Veterans completed questionnaire batteries before initiating treatment. Participants were 120 veterans with a mean age of 62 years and mean BMI of 38. A positive PTSD screen was associated with significantly higher scores on the Yale Emotional Overeating Questionnaire (YEOQ) overall, as well as higher scores on each individual item, which includes anxiety, sadness, loneliness, tiredness, anger, happiness, boredom, guilt, and physical pain (all p < 0.005). Higher scores on the PTSD screen were associated with more frequent emotional eating for all emotions as well. Findings suggest
that emotional eating is common among veterans reporting PTSD symptoms, and that any degree of PTSD symptom severity is associated with more frequent emotional eating. Veterans with PTSD may need specific attention given to alternative coping strategies when facing difficult emotions as part of weight loss treatment.


The utility of the Pittsburgh sleep quality index in US military personnel.
Panagiotis Matsangas & Vincent Mysliwiec
Military Psychology
Published online: 27 Jul 2018
DOI: 10.1080/08995605.2018.1478547

Sleep disturbances are endemic in military personnel with nonclinical populations averaging 6 hours of sleep. The Pittsburgh Sleep Quality Index (PSQI), however, has not been validated in this population. It is thus unknown if the PSQI can differentiate clinically significant sleep disorders from sleep disturbances resulting from military duties with restricted sleep periods. After a clinical evaluation and polysomnogram, participants (N = 148) were classified as having insomnia only, obstructive sleep apnea (OSA) only, comorbid insomnia and OSA (CIO), service-related illnesses only (SRI—; pain, depression, posttraumatic stress disorder, traumatic brain injury), and controls. Military personnel in the insomnia only, and the CIO groups had higher PSQI scores (13.5 ± 2.8 and 14.7 ± 3.5, respectively) compared to the controls (8.9 ± 3.9). A cut-off score of ≥10 was optimal (90% sensitivity and 69% specificity) for determining clinically significant insomnia (≥12 for CIO; 84% sensitivity, 77% specificity). In military personnel, a PSQI score >5 is not necessarily indicative of a clinically significant sleep disorder. The use of elevated cut-off PSQI scores are likely better suited to differentiate military personnel who require further clinical evaluation versus a more conservative sleep improvement protocol.


Soldiers’ perspectives of the married army couples program: A review of perceived problems and proposed solutions.
Ann Hergatt Huffman, Nora Dunbar, Timothy W. Broom & Carl A. Castro
The current study investigated soldiers’ perceptions of the Married Army Couples Program (MACP) using data from focus groups conducted with Army personnel in dual-military marriages. Despite the high success rate of the program (approximately 80–83%)—success being defined as establishment of a joint domicile within a 50-mile radius of each spouse’s duty station—a variety of difficulties were reported as well as consequent negative perceptions. Problems included dissatisfaction with the parameters defining joint domicile, obstacles to career advancement, lack of quality information regarding the program, and unequal allocation depending on one’s level of leadership support. Difficulties with MACP led to negative impressions of the program and of the Army as a whole. Specifically, when asked about challenges related to the program, many participants reported perceptions of a poorly functioning program, an uncaring environment, and of the Army as a hypocritical institution. For individuals in dual-military marriages, these difficulties affect quality of life. For the institution, these negative perceptions can potentially lead to problems with retention of one or both members of a dual-military couple. We propose several strategies to improve the effectiveness of MACP and to increase positive perceptions of the program based on suggestions from the focus groups in addition to the military and work literatures.

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Distress tolerance but not impulsivity predicts outcome in concurrent treatment for posttraumatic stress disorder and substance use disorder.

Hannah C. Levy, Sonya G. Wanklyn, Andrew C. Voluse & Kevin M. Connolly

Posttraumatic stress disorder (PTSD) and substance use disorder (SUD) commonly co-occur. Emerging research suggests that both distress tolerance and impulsivity may underlie this comorbidity. However, to our knowledge no studies have examined whether these 2 constructs predict outcome in PTSD-SUD treatment. The current study investigated whether pretreatment distress tolerance and impulsivity predicted posttreatment PTSD and cravings severity in a sample of 70 veterans receiving concurrent treatment for PTSD and SUD in a residential day treatment program. Veterans completed measures of symptom severity before and after treatment. Results demonstrated that pretreatment distress
tolerance predicted posttreatment PTSD severity while controlling for pretreatment PTSD. By contrast, pretreatment impulsivity was not predictive of posttreatment PTSD while controlling for pretreatment values. Neither distress tolerance nor impulsivity predicted posttreatment craving severity. The findings support the notion that distress tolerance may help to explain the co-occurrence of PTSD and SUD and suggest that targeting this construct in PTSD-SUD treatment may be important for successful outcomes.


Factors affecting behavioral health provider turnover in US Air Force primary care behavioral health services.

Ryan R. Landoll, Matthew K. Nielsen & Kathryn K. Waggoner

Military Psychology
Published online: 31 Jul 2018
https://doi.org/10.1080/08995605.2018.1478549

Turnover and retention of integrated behavioral health practitioners in primary care is a significant challenge with limited empirical evidence to inform risk factors. This study used retrospective archival data from the Air Force Medical Service’s Behavioral Health Optimization Program on all civilian contractors hired from September 2012 to November 2014 to examine the potential influence of training background (e.g., social work v. psychology), size of healthcare facility, or the presence of on-site mentors. Turnover was evaluated across a large managed healthcare organization of 121 civilian contractors (psychologists and social workers) in 72 specific clinic settings. These sites varied considerably in regards to geographic location, population diversity, size of patient empanelment, rural, suburban, and urban settings and all provided care to active duty military, their civilian dependents and civilian retirees. Results found that 54% of all psychologists and social workers hired for these positions quit or were fired within 8 months of employment. Smaller medical facilities were found to have a more significant attrition rate compared to medium- and large-sized facilities; no other differences were noted. Findings provide initial insight into a potential critical period in the first year of a behavioral health consultants on-boarding, as well as unique considerations for consultants placed in smaller facilities who may be at elevated risk for attrition. These preliminary findings suggest targeted interventions for new integrated care programs as well as important avenues for future research.

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Effects of Threat Context, Trauma History, and Posttraumatic Stress Disorder Status on Physiological Startle Reactivity in Gulf War Veterans.

Andrea N. Niles  Adam Luxenberg  Thomas C. Neylan  Sabra S. Inslicht  Anne Richards  Thomas J. Metzler  Jennifer Hlavin  Jersey Deng  Aoife O'Donovan

Journal of Traumatic Stress
First published: 30 July 2018
https://doi.org/10.1002/jts.22302

In the current study, we explored exaggerated physiological startle responses in posttraumatic stress disorder (PTSD) and examined startle reactivity as a biomarker of PTSD in a large veteran sample. We assessed heart rate (HR), skin conductance (SC), and electromyographic (EMG) startle responses to acoustic stimuli under low-, ambiguous-, and high-threat conditions in Gulf War veterans with current (n = 48), past (n = 42), and no history of PTSD (control group; n = 152). We evaluated PTSD status using the Clinician-Administered PTSD Scale and trauma exposure using the Trauma History Questionnaire. Participants with current PTSD had higher HR, ds = 0.28–0.53; SC, d = 0.37; and startle responses than those with past or no history of PTSD. The HR startle response under ambiguous threat best differentiated current PTSD; however, sensitivity and specificity analyses revealed it to be an imprecise indicator of PTSD status, ROC AUC = .66. Participants with high levels of trauma exposure only showed elevated HR and SC startle reactivity if they had current PTSD. Results indicate that startle is particularly elevated in PTSD when safety signals are available but a possibility of danger remains and when trauma exposure is high. However, startle reactivity alone is unlikely to be a sufficient biomarker of PTSD.

Cognitive behavioral therapy for treatment-resistant depression: A systematic review and meta-analysis.

Jia-Mei Li, Yi Zhang, Wen-Jun Su, Lin-Lin Liu, ... Chun-Lei Jiang

Psychiatry Research
Volume 268, October 2018, Pages 243-250
https://doi.org/10.1016/j.psychres.2018.07.020
Highlights
• Meta-analysis of CBT for patients with treatment-resistant depression.
• CBT has superior efficacy in patients with treatment-resistant depression.
• CBT take effect immediately after intervention and the effect can last for a long time.

Abstract
Cognitive behavioral therapy (CBT) is a common psychotherapy characterized as treating mental diseases, such as depression. Though multiple studies have reported its effect in treatment-resistant depression, no qualified meta-analysis has ever assessed this effect before. In this study, we evaluated the efficacy of CBT for treatment-resistant depression patients and its continuous effect. We comprehensively searched PubMed, Embase, and Cochrane Library from inception to February 2018 for eligible randomized controlled trials (RCTs). A total of six RCTs involving 847 participants were included. Pooled analysis indicated that CBT was an efficient invention in reducing depression symptoms. Besides, CBT was also superior to control group in increasing response and remission rates. These effects could take effect at post-treatment, and last for 6 months, or even 1 year long. No publication bias was detected. These findings suggested that compared with routine antidepressant treatment, CBT has greater potential in taking immediate effect and has better mid-term and long-term prognosis.


Conceptualizing Acceptance in Postdeployment Soldiers.

Daniel P. Johnson, Kristalyn Salters-Pedneault, Jillian C. Shipherd

Journal of Psychopathology and Behavioral Assessment
First Online: 23 July 2018
DOI https://doi.org/10.1007/s10862-018-9691-5

While research on the role of acceptance in psychological well-being and treatment of posttraumatic distress is promising, significant challenges remain in developing a workable conceptualization of acceptance. The current study contributes to a more measureable and functional conceptualization of acceptance in postdeployment soldiers using a latent variable approach. Participants were a large sample of active duty service members who had recently returned from deployment (n = 1, 524). Exploratory factor analysis identified substantial common variance among several facets of acceptance-related measures, including nonjudgmental awareness, acceptance of internal experiences, and not using worry and experiential avoidance to control internal experiences. These results, confirmed with CFA, suggest that acceptance in postdeployment adjustment may be best
conceptualized as a combination of awareness, nonjudgment of experience, and the tendency to refrain from using strategies such as worry to avoid feelings and emotions. Additionally, results of structural regression indicated that the latent variable of acceptance was negatively associated with measures of postdeployment maladjustment. These results are discussed in the context of current conceptualizations of acceptance and related constructs, and the burgeoning literature supporting the development and implementation of acceptance-based interventions for potentially traumatized populations.

https://www.tandfonline.com/doi/abs/10.1080/02699052.2018.1497205

Neuropsychological correlates of self-reported impulsivity and informant-reported maladaptive behaviour among veterans with posttraumatic stress disorder and traumatic brain injury history.

Lauren E. Kois, Shannon M. Blakey, Brett O. Gardner, Matthew R. McNally, Jacqueline L. Johnson, Robert M. Hamer & Eric B. Elbogen

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Objective:
Frontal lobe deficits resulting from traumatic brain injury (TBI) and/or posttraumatic stress disorder (PTSD) have been linked to impulsive behaviour. We sought to examine whether neuropsychological performance predicted self-reported impulsivity and informant-reported maladaptive behaviour.

Method:
We administered the Delis-Kaplan Executive Function System (D-KEFS) to 116 Iraq/Afghanistan-era veterans diagnosed with a history of TBI and PTSD.

Results:
Poorer performance on D-KEFS Stroop Task (both colour and word, separately) and Trail making (letter sequencing and motor speed) tasks and higher PTSD symptom severity were associated with higher self-reported impulsivity. Trail making letter sequencing performance was negatively associated with informant-reported maladaptive behaviour. Regression analyses revealed PTSD symptom severity and Trail making letter sequencing best predicted self-reported impulsivity, even when accounting for age, sex, and education. Only Trail making letter sequencing predicted informant-reported maladaptive behaviour when accounting for other variables in the model.
Conclusions:
Attention and processing speed impairments and PTSD symptom severity appear to be important predictors of impulsivity and problematic behaviour among veterans. Findings have implications for theoretical models of aggression and violence and inform the assessment and treatment of individuals with TBI and PTSD.


A survey of clinical approaches to suicide risk assessment for patients intoxicated on alcohol.

Scott A.Simpson, MD MPH

Psychosomatics
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Introduction
Suicidal ideation and alcohol use are common among emergency department (ED) patients. It is unclear at what point a suicide risk assessment should occur among patients who present with acute alcohol intoxication. This study aims to describe practice patterns among expert practitioners for timing the suicide risk assessment for an intoxicated patient.

Methods
An online survey was sent to emergency psychiatrists and behavioral health specialists on 2 national listserves including that of the Academy of Consultation-Liaison Psychiatry's Emergency Psychiatry Special Interest Group.

Results
60 respondents had an mean of 16±12 years (mean±SD) out of specialty training and had extensive experience and comfort in managing this patient presentation. All respondents were board-certified and most (68%) practiced in academic settings. The most common practice for conducting a safety risk assessment in alcohol intoxicated patients was to proceed once the patient was clinically sober (58%). Other practices included re-testing the patient until a specific blood alcohol concentration (BAC) was reached (19%) or waiting a certain time after presentation based on the initial BAC (15%). Some (8%) evaluated actively intoxicated patients for suicide risk. Practice varied slightly based on the location of practice, type of practice, and where the clinician trained.
Discussion
Expert clinicians most often describe using a clinical assessment to determine sobriety before completing a suicidal risk assessment, although alternative practices remain common. While advantages and disadvantages vary among different approaches, the quality and evidence base underlying these practices are questioned.

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Evaluating patterns and predictors of symptom change during a three-week intensive outpatient treatment for veterans with PTSD.

Alyson K. Zalta, Philip Held, Dale L. Smith, Brian J. Klassen, Ashton M. Lofgreen, Patricia S. Normand, Michael B. Brennan, Thad S. Rydberg, Randy A. Boley, Mark H. Pollack and Niranjan S. Karnik

BMC Psychiatry
2018; 18:242
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Background
Intensive delivery of evidence-based treatment for posttraumatic stress disorder (PTSD) is becoming increasingly popular for overcoming barriers to treatment for veterans. Understanding how and for whom these intensive treatments work is critical for optimizing their dissemination. The goals of the current study were to evaluate patterns of PTSD and depression symptom change over the course of a 3-week cohort-based intensive outpatient program (IOP) for veterans with PTSD, examine changes in posttraumatic cognitions as a predictor of treatment response, and determine whether patterns of treatment outcome or predictors of treatment outcome differed by sex and cohort type (combat versus military sexual trauma [MST]).

Method
One-hundred ninety-one veterans (19 cohorts: 12 combat-PTSD cohorts, 7 MST-PTSD cohorts) completed a 3-week intensive outpatient program for PTSD comprised of daily group and individual Cognitive Processing Therapy (CPT), mindfulness, yoga, and psychoeducation. Measures of PTSD symptoms, depression symptoms, and posttraumatic cognitions were collected before the intervention, after the intervention, and approximately every other day during the intervention.

Results
Pre-post analyses for completers (N = 176; 92.1% of sample) revealed large reductions in
PTSD (d = 1.12 for past month symptoms and d = 1.40 for past week symptoms) and depression symptoms (d = 1.04 for past 2 weeks). Combat cohorts saw a greater reduction in PTSD symptoms over time relative to MST cohorts. Reduction in posttraumatic cognitions over time significantly predicted decreases in PTSD and depression symptom scores, which remained robust to adjustment for autocorrelation.

Conclusion
Intensive treatment programs are a promising approach for delivering evidence-based interventions to produce rapid treatment response and high rates of retention. Reductions in posttraumatic cognitions appear to be an important predictor of response to intensive treatment. Further research is needed to explore differences in intensive treatment response for veterans with combat exposure versus MST.

An Assessment of Medical Practitioners’ Knowledge of, Experience with, and Treatment Attitudes Towards Sleep Disorders and Nightmares.

Westley A. Youngren, Katherine E. Miller, Joanne L. Davis

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Sleep disorders are frequently under assessed and not well understood by medical practitioners. This study investigated medical practitioners’ knowledge of, experience with, and treatment considerations for sleep disorders, with a particular emphasis on nightmares. Eighty-eight individuals practicing medicine in the United States completed a survey eliciting information in three domains: (a) professional experience with nightmares, (b) knowledge of nightmares, and (c) attitudes about treatment of sleep disturbances. Seventy percent of participants reported a lack of professional experience with nightmares, 78% endorsed inaccurate definitions of nightmares, and 82% considered sleep disorders to be a secondary problem, with 75% considering nightmares a secondary problem. Seventy-two percent of participants reported they would be likely to consider psychological treatment for nightmares. Results suggest that medical practitioners may not be receiving updated and/or adequate education about sleep disorders, including nightmares. This lack of information may contribute to sleep disorders being under assessed and untreated.
An Initial Investigation of Nonsuicidal Self-Injury among Male and Female Survivors of Military Sexual Trauma.

Ryan Holliday, Noelle B. Smith, Lindsey L. Monteith

Psychiatry Research
Available online 27 July 2018
https://doi.org/10.1016/j.psychres.2018.07.033

Highlights
• More than ¼ of military sexual trauma survivors endorsed nonsuicidal self-injury.
• Nonsuicidal self-injury was associated with more severe suicidal ideation.
• Nonsuicidal self-injury was also linked to PTSD symptoms and trauma cognitions.
• It is important to consider nonsuicidal self-injury in this population.

Abstract
Nonsuicidal self-injury (NSSI) has been understudied among survivors of military sexual trauma (MST). The aims of the current study were to: (1) describe characteristics of NSSI among survivors of MST and (2) determine if MST survivors who have engaged in NSSI differ from those who have never engaged in NSSI in terms of the severity of posttraumatic stress disorder (PTSD) and depressive symptoms, trauma-related cognitions, and recent suicidal ideation. Participants were 107 veterans (65 females, 42 males) with a history of MST who completed measures of NSSI, PTSD and depressive symptoms, recent suicidal ideation, and trauma-related cognitions. Approximately one-fourth of participants (n = 27; 25.23%) endorsed a history of NSSI. The majority of participants who engaged in NSSI reported that they first engaged in NSSI following MST (n = 18; 66.67%). MST survivors with a history of NSSI reported more severe PTSD symptoms, recent suicidal ideation, and trauma-related cognitions. NSSI was relatively common in the sample and was associated with a more severe clinical presentation. Longitudinal research is needed to understand the development, maintenance, and function of NSSI in MST survivors, especially as it pertains to risk for suicidal self-directed violence.

http://n.neurology.org/content/early/2018/07/27/WNL.0000000000006034

Comprehensive analysis of the predictors of neurobehavioral symptom reporting in veterans.
Objective
This study assessed the strength of military-related concussion-, psychological-, and behavioral-related measures to predict neurobehavioral symptom (NBS) reporting in order to help clarify the extent to which persistent NBS reflect lingering effects of concussion vs other psychological/behavioral factors among veterans.

Methods
Baseline analysis included 351 consecutively enrolled veterans in the Translational Research Center for Traumatic Brain Injury and Stress Disorders longitudinal cohort study. One hundred eighty-six returned for a follow-up evaluation averaging 24 months post baseline. The Neurobehavioral Symptom Inventory (NSI) was used to measure NBS reporting. Predictor variables included diagnosis of military-related mild traumatic brain injury (M-mTBI), psychological measures, including posttraumatic stress disorder, mood, anxiety, and substance abuse disorders, and behavioral measures, including self-reported current pain and sleep impairment. Hierarchical and multivariable regression analyses examined the relationships between the predictor variables and NSI scores. The k-fold cross-validation assessed generalizability and validity of the regressions.

Results
Baseline analysis revealed that psychological and behavioral conditions independently accounted for 42.5% of variance in the NSI total score compared to 1.5% for M-mTBI after controlling for psychological and behavioral conditions. Prospective analysis revealed that M-mTBI at baseline did not significantly predict NSI score at follow-up, while psychological and behavioral measures at baseline independently accounted for 24.5% of NSI variance. Posttraumatic stress disorder was the most consistent predictor. Cross-validation analyses supported generalizability of the results.

Conclusions
Psychological and behavioral-related measures are strong predictors of persistent NBS reporting in veterans, while M-mTBI is negligible. NBS more likely reflect influential comorbidities as opposed to brain injury, per se.
Links of Interest

You’ve lost that lovin' feeling: Marriage and family hampered by military life, survey results say

The Millennial Who Uses Comedy to Help Veterans Heal

Military raises drinking age for DOD personnel in Bahrain from 18 to 21

Air Force defensive back is first openly gay service academy player

Family Seeks $25 Million from Marines After Colonel Convicted of Abuse

Commentary: Recruiting’s slippery slope

Changing lives: Evidence-based therapies aid vets

The Army is tightening waiver authority for recruits with issues like self-mutilation, misconduct and substance abuse

The Air Force Academy just eliminated a huge barrier to sexual assault victims stepping forward
Report: One service leads all others in number of sex partners  

VA is Rethinking Its Entire Online Presence  

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**Resource of the Week:** Assessing the Needs of Soldiers and Their Families at the Garrison Level

New from the RAND Corporation:

The RAND Arroyo Center conducted a 2014 formal needs assessment survey of active component soldiers at 40 installations. The original study described a broad landscape of needs in such areas as quality of life support services provided to help families cope with a variety of challenges. In this report, new analysis of those survey data explores differences at the garrison level and includes additional focus group data. The analysis suggests that resources providing one-on-one, personalized help should be given priority and it is possible that emphasizing trust between soldiers and their leaders could help fulfill this need. Providing easily accessible information online and staffing services that provide information to soldiers and their families should also be continuing priorities. In intergovernmental support agreements and other community partnership activities, Army garrisons should consider focusing more on partnerships that help meet the needs of soldiers and their families. The Army might consider a series of solutions to achieve the right balance between fostering resilience and helping its soldiers solve problems early. One solution is to expose noncommissioned officers and other soldiers earlier and more frequently in their careers to information regarding what resources are available. Another solution is to set priorities at the aggregate Army level, rather than leaving lower levels to determine how to prioritize the many requirements that are passed down. Finally, the Army should consider strengthening the "no wrong door" policy at Army Community Service and broadening the policy to help soldiers and families navigate resources.
Assessing the Needs of Soldiers and Their Families at the Garrison Level

Carra S. Sims, Thomas E. Trail, Emily K. Chen, Erika Meza, Parisa Roshan, Beth E. Lachman

Shirl Kennedy
Research Editor
Center for Deployment Psychology
www.deploymentpsych.org
skennedy@deploymentpsych.org
240-535-3901