

CDP Research Update -- July 20, 2017

What's Here:

- PTSD Research Quarterly -- Patient Engagement in PTSD Treatment
- Gender Differences in Trauma Types and Themes in Veterans with Posttraumatic Stress Disorder.
- An empirical review of potential mediators and mechanisms of prolonged exposure therapy.
- Assessment-Driven Case Formulation and Treatment Planning in Dialectical Behavior Therapy: Using Principles to Guide Effective Treatment.
- The Moderating Effect of Childhood Maltreatment on the Relations Among PTSD Symptoms, Positive Urgency, and Negative Urgency.
- Sleep Quality in Returning Veterans: The Influence of Mild Traumatic Brain Injury.
- Female Veterans: Navigating Two Identities.
- Trajectories of alcohol use in the UK military and associations with mental health.
- Increased risk of attempted suicide in Australian veterans is associated with total and permanent incapacitation, unemployment and posttraumatic stress disorder severity.
- A Comparison of Veterans Who Repeat versus Who Do Not Repeat a Course of Manualized, Cognitive-Behavioral Therapy for Posttraumatic Stress Disorder.
- Demographics as predictors of suicidal thoughts and behaviors: A meta-analysis.
- Adapting Cognitive Processing Therapy to Treat Co-Occurring Posttraumatic Stress Disorder and Mild Traumatic Brain Injury: A Case Study.
- From Ideation to Action: Recent Advances in Understanding Suicide Capability.

- The Influence of Traumatic Brain Injury on Treatment Outcomes of Concurrent Treatment for PTSD and Substance Use Disorders Using Prolonged Exposure (COPE) in Veterans.
- Economic evaluations of internet- and mobile-based interventions for the treatment and prevention of depression: A systematic review.
- Individuals at high risk for suicide are categorically distinct from those at low risk.
- Links of Interest

https://www.ptsd.va.gov/professional/newsletters/research-quarterly/V28N3.pdf

PTSD Research Quarterly -- Patient Engagement in PTSD Treatment

Shannon Kehle-Forbes, PhD National Center for PTSD, Minneapolis VA Healthcare System

Rachel Kimerling, PhD National Center for PTSD, VA Palo Alto Healthcare System

VOLUME 28/NO. 3, JULY 2017

For patients with PTSD to derive the greatest benefit from available evidence-based psychotherapies and psychiatric medications they must be able to fully engage in their treatment. However, a wealth of published data demonstrates that a majority of service members and Veterans with PTSD are not successful in doing so.

http://www.tandfonline.com/doi/full/10.1080/15325024.2017.1335151

Gender Differences in Trauma Types and Themes in Veterans with Posttraumatic Stress Disorder.

Janice L. Krupnick

Journal of Loss and Trauma Published online: 30 May 2017 http://dx.doi.org/10.1080/15325024.2017.1335151

Background:

This study aimed to determine whether there were gender differences in trauma types and cognitive-emotional themes among veterans with deployment-related posttraumatic stress disorder (PTSD).

Methods:

Case notes or writing excerpts from two pilot studies were reviewed to determine types of traumas and emerging themes, with 20 women and 31 men comprising the sample.

Results:

Most women developed PTSD after sexual assault, with reactions emphasizing mistrust, betrayal, and anger. Men experienced more combat, with reactions including survivor guilt, moral injury, and horror.

Conclusions:

Both genders developed PTSD, but the causes of and reactions to their traumas differed. Emerging themes can be useful treatment foci.

http://www.sciencedirect.com/science/article/pii/S0272735816302884

An empirical review of potential mediators and mechanisms of prolonged exposure therapy.

Andrew A. Cooper, Erin G. Clifton, Norah C. Feeny

Clinical Psychology Review Available online 11 July 2017 https://doi.org/10.1016/j.cpr.2017.07.003

Prolonged exposure (PE) is an empirically-supported treatment for posttraumatic stress disorder (PTSD), but the precise mechanism(s) by which PE promotes symptom change are not well established. Understanding how PE works is critical to improving clinical outcomes, advancing dissemination efforts, and enhancing transdiagnostic models of psychopathology. However, mechanisms research conducted in clinical

treatment settings is complex, and findings may be difficult to interpret without appropriate context. This is the first review of potential mechanisms of PE to provide such context, by rigorously evaluating empirical findings in line with essential criteria for effective research on mechanisms (or mediators). We begin by describing six putative mechanisms identified by emotional processing theory and contemporary models of fear extinction, before thoroughly reviewing empirical findings from clinical research on PE and similar PTSD treatments. We provide a detailed description of each study and mechanism test, as well as ratings of strength of evidence and quality of evaluation based on a novel rating scheme. We highlight variables with strong evidence (belief change and between-session habituation), intermediate evidence (inhibitory learning and emotional engagement), and minimal support (narrative organization and withinsession habituation). After discussing limitations of the extant literature and this review, we summarize specific challenges for research on PE mechanisms and highlight directions for future study based on clinical and research implications.

http://www.sciencedirect.com/science/article/pii/S1077722917300718

Assessment-Driven Case Formulation and Treatment Planning in Dialectical Behavior Therapy: Using Principles to Guide Effective Treatment.

Shireen L. Rizvi, Jennifer H.R. Sayrs

Cognitive and Behavioral Practice Available online 10 July 2017 https://doi.org/10.1016/j.cbpra.2017.06.002

Dialectical Behavior Therapy (DBT) is a complex cognitive-behavioral treatment designed for a population with multiple problematic and high-risk behaviors. As with any behavioral treatment, the role of assessment in DBT is critical. Although there is a significant body of research supporting the efficacy of DBT, there is a relative dearth of practical and principle-based information that help therapists formulate cases and treatment from a DBT perspective. In this article, we provide a step-by-step guide for creating an assessment-driven DBT case formulation and treatment plan. We focus on identifying stage of treatment, determining goals, developing the target hierarchy, assessing and treating the primary target behavior, and tracking outcomes. We highlight the few rules that inform DBT assessment and practice, note and correct several common misconceptions, and demonstrate how the use of thorough assessment can result in a more nuanced case formulation and treatment plan.

http://onlinelibrary.wiley.com/doi/10.1002/jts.22198/abstract

The Moderating Effect of Childhood Maltreatment on the Relations Among PTSD Symptoms, Positive Urgency, and Negative Urgency.

Matthew Price, Julie P. Connor and Holley C. Allen

Journal of Traumatic Stress Version of Record online: 12 JUL 2017 DOI: 10.1002/jts.22198

Childhood maltreatment increases the risk for posttraumatic stress disorder (PTSD) and comorbid substance use disorder (SUD). One pathway by which this occurs is through impaired emotion regulation. Past research has shown that negative urgency, a deficit in the regulation of negative emotions, is strongly related to PTSD in those with comorbid SUD. However, there is minimal research on the relation between positive urgency and PTSD in those with comorbid SUD. The current study investigated the association between childhood maltreatment, positive urgency, negative urgency, and PTSD symptoms among those with SUD. Results suggested that PTSD was associated with negative urgency and positive urgency overall. Childhood maltreatment did not moderate the association between negative urgency and PTSD. Childhood emotional abuse, emotional neglect, and sexual abuse moderated the relation between positive urgency and PTSD ($\Delta R2 = .04$ to .10). The association between PTSD and positive urgency was only significant at lower levels of emotional abuse and neglect. Future research should further examine the processing of positive emotions in those with PTSD and comorbid SUD. Findings might inform clinical interventions among populations exposed to childhood maltreatment to reduce or prevent the development of psychopathology.

https://www.ncbi.nlm.nih.gov/pubmed/28703617

Rehabil Psychol. 2017 Jul 13. doi: 10.1037/rep0000159. [Epub ahead of print]

Sleep Quality in Returning Veterans: The Influence of Mild Traumatic Brain Injury.

Martindale SL, Farrell-Carnahan LV, Ulmer CS, Kimbrel NA, McDonald SD, Rowland JA; VA Mid-Atlantic MIRECC Registry Workgroup.

OBJECTIVE:

Sleep disturbance is a key behavioral health concern among Iraq and Afghanistan era veterans and is a frequent complaint among veterans with a history of mild traumatic brain injury (mTBI). Currently, it is unclear whether sleep disturbance is a core sequelae of mTBI or if it may be related to other behavioral health conditions that are commonly present in postdeployment veterans. The purpose of this study was to determine if history of mTBI is associated with poor sleep quality beyond combat exposure and behavioral health concerns, including posttraumatic stress disorder (PTSD), mood disorders, anxiety disorders, and substance use disorders.

RESEARCH METHOD:

Participants included 527 veterans who deployed after September 11, 2001, in support of the wars in Iraq and Afghanistan. Participants completed the Structured Clinical Interview for DSM-IV Disorders, Combat Exposure Scale, a structured clinical TBI interview, and the Pittsburgh Sleep Quality Index.

RESULTS:

Deployment-related mTBI was associated with poor sleep quality independent of combat exposure, PTSD, mood disorders, anxiety disorders, and substance use disorders (B = 1.84, p = .001) an average of 6 years after the injury event. No interaction effects between deployment-related mTBI and combat exposure, PTSD, mood disorders, anxiety disorders, or substance use disorders on sleep quality were detected.

CONCLUSIONS:

Veterans with a history of mTBI sustained during deployment reported significantly poorer sleep quality than veterans without history of mTBI, even when considering combat exposure and behavioral health issues. Clinicians should consider mTBI as a potential contributor to sleep problems, even years after an injury event. (PsycINFO Database Record

(c) 2017 APA, all rights reserved).

https://link.springer.com/article/10.1007/s10615-017-0636-3

Female Veterans: Navigating Two Identities.

Jessica D. Strong, Brandi M. Crowe, Sarah Lawson

Clinical Social Work Journal First Online: 14 July 2017

Female veterans differ from their male veteran counterparts in terms of ratio of men to women, minority status, economic status, and age. In 2014, female veterans totaled over 2 million; roughly 10% of the veteran population. In addition to balancing personal and professional responsibilities, many female veterans also have to adjust to and cope with the physical and/or mental health conditions they experience post-deployment. The extent to which female veterans succeed in transitioning back to civilian life post-deployment may be determined by biological, psychological, and social factors within their home and community. Circumstances that can support or hinder female veterans' reintegration process include: (a) availability of gender-specific Veterans Affairs policies and services; (b) access to education and employment; (c) supports specific to mental health and/or military sexual trauma; and (d) social stigmas associated with being a female veterans. Along with other healthcare professionals, social workers have an obligation to promote social justice, and to empower underprivileged populations, including female veterans, whose needs may differ from male veterans and require specific expertise and knowledge.

http://www.sciencedirect.com/science/article/pii/S0306460317302551

Trajectories of alcohol use in the UK military and associations with mental health.

L. Goodwin, S. Norton, N.T. Fear, M. Jones, L. Hull, S. Wessely, R.J. Rona

Addictive Behaviors Available online 12 July 2017 https://doi.org/10.1016/j.addbeh.2017.07.010

Introduction

There are higher levels of alcohol misuse in the military compared to the general population. Yet there is a dearth of research in military populations on the longitudinal patterns of alcohol use. This study aims to identify group trajectories of alcohol consumption in the UK military and to identify associations with childhood adversity, deployment history and mental disorder.

Methods

Data on weekly alcohol consumption across an eight year period and three phases of a UK military cohort study (n = 667) were examined using growth mixture modelling.

Results

Five alcohol trajectory classes were identified: mid-average drinkers (55%), abstainers (4%), low level drinkers (19%), decreasing drinkers (3%) and heavy drinkers (19%). Alcohol consumption remained stable over the three periods in all classes, other than in the small decreasing trajectory class. Individuals in the heavy drinking class were more likely to have deployed to Iraq. Abstainers and heavy drinkers were more likely to report post-traumatic stress disorders at baseline compared to average drinkers.

Conclusions

Heavy drinkers in the UK military did not change their drinking pattern over a period of eight years. This highlights the need to develop effective preventive programmes to lessen the physical and psychological consequences of long-term heavy alcohol use. Individuals with a mental health problem appeared more likely to either be drinking at a high level or to be abstaining from use.

http://journals.sagepub.com/doi/abs/10.1177/0004867417718945

Increased risk of attempted suicide in Australian veterans is associated with total and permanent incapacitation, unemployment and posttraumatic stress disorder severity.

Katelyn Kerr, Madeline Romaniuk, Sarah McLeay, Andrew Khoo, Michael T Dent, Mark Boshen

Australian & New Zealand Journal of Psychiatry First Published July 14, 2017 DOI: https://doi.org/10.1177/0004867417718945

Background:

Military veterans have higher rates of suicidality and completed suicides compared to the general population. Previous research has demonstrated suicidal behaviour is higher in US combat veterans who are younger, suffer from posttraumatic stress disorder, depression and anxiety and score lower on measures of health. However,

research on predictors of suicide for Australian veterans is limited. The aim of this study was to identify significant demographic and psychological differences between veterans with posttraumatic stress disorder who had attempted suicide and those with posttraumatic stress disorder who had not, as well as determine predictors of suicide attempts within an Australian cohort.

Methods:

A retrospective analysis was conducted on 229 ex-service personnel diagnosed with posttraumatic stress disorder who had attended a Military Service Trauma Recovery Day Program as outpatients at Toowong Private Hospital from 2007 to 2014. Patients completed a battery of mental health self-report questionnaires assessing symptoms of posttraumatic stress disorder, alcohol use, anger, depression, anxiety and quality of life. Demographic information and self-reported history of suicide attempts were also recorded.

Results:

Results indicated the average age was significantly lower, and the rates of posttraumatic stress disorder, anger, anxiety and depression symptoms were significantly higher in those veterans with history of a suicide attempt. Multivariate logistic regression analyses indicated posttraumatic stress disorder symptom severity, unemployment or total and permanent incapacity pension status significantly predicted suicide attempt history.

Conclusion:

Among a cohort of Australian veterans with posttraumatic stress disorder, psychopathology severity, unemployment and total and permanent incapacity status are significantly associated with suicidality. This study highlights the importance of early identification of posttraumatic stress disorder and psychopathology, therapeutic and social engagement, and prioritisation of tangible employment options or meaningful and goal-directed activities for veterans deemed unable to work.

http://www.sciencedirect.com/science/article/pii/S0005789417300783

A Comparison of Veterans Who Repeat versus Who Do Not Repeat a Course of Manualized, Cognitive-Behavioral Therapy for Posttraumatic Stress Disorder.

Jeremiah A. Schumm, Nicole D. Pukay-Martin, Whitney L. Gore

Behavior Therapy Available online 13 July 2017 https://doi.org/10.1016/j.beth.2017.06.004

Despite evidence that cognitive-behavioral therapy (CBT) for posttraumatic stress disorder (PTSD) is effective, some individuals do not experience clinically significant reduction or remission of their PTSD symptoms. These individuals may return for additional PTSD-focused psychotherapy. However, there is no research to know whether PTSD treatment repeaters have worse symptoms prior to the initial treatment episode or display differences in other pre-treatment characteristics versus nonrepeaters. Research is also needed to explore whether treatment repeaters exhibit PTSD symptom changes during an initial or second course of treatment. The current study examines differences in pre-treatment characteristics and treatment response among US military veterans who participated in either a single course (n = 711) or in two separate courses (n = 87) of CBT for PTSD through an outpatient Veterans Affairs PTSD treatment program. Veterans completing two courses of CBT for PTSD were more likely to be married and employed and more likely to drop out of their initial course of treatment versus those who completed a single course. Hierarchical linear models showed that reductions in PTSD symptoms during treatment were not different for those who completed a second versus single course of CBT for PTSD. However, for those participating in two courses of CBT for PTSD, a relapse in PTSD symptoms was observed between the first and second course. These findings show that a second course of CBT may be viable for those with ongoing PTSD symptoms.

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0180793

Demographics as predictors of suicidal thoughts and behaviors: A meta-analysis.

Xieyining Huang, Jessica D. Ribeiro, Katherine M. Musacchio, Joseph C. Franklin

PLOS ONE Published: July 10, 2017 https://doi.org/10.1371/journal.pone.0180793

Background

Certain demographic factors have long been cited to confer risk or protection for suicidal thoughts and behaviors. However, many studies have found weak or non-significant effects. Determining the effect strength and clinical utility of demographics as predictors

is crucial for suicide risk assessment and theory development. As such, we conducted a meta-analysis to determine the effect strength and clinical utility of demographics as predictors.

Methods

We searched PsycInfo, PubMed, and GoogleScholar for studies published before January 1st, 2015. Inclusion criteria required that studies use at least one demographic factor to longitudinally predict suicide ideation, attempt, or death. The initial search yielded 2,541 studies, 159 of which were eligible. A total of 752 unique statistical tests were included in analysis.

Results

Suicide death was the most commonly studied outcome, followed by attempt and ideation. The average follow-up length was 9.4 years. The overall effects of demographic factors studied in the field as risk factors were significant but weak, and that of demographic factors studied as protective factors were non-significant. Adjusting for publication bias further reduced effect estimates. No specific demographic factors appeared to be strong predictors. The effects were consistent across multiple moderators.

Conclusions

At least within the narrow methodological constraints of the existing literature, demographic factors were statistically significant risk factors, but not protective factors. Even as risk factors, demographics offer very little improvement in predictive accuracy. Future studies that go beyond the limitations of the existing literature are needed to further understand the effects of demographics.

http://www.sciencedirect.com/science/article/pii/S107772291730072X

Adapting Cognitive Processing Therapy to Treat Co-Occurring Posttraumatic Stress Disorder and Mild Traumatic Brain Injury: A Case Study.

K. Amber Turner, Andrew J. Smith, Russell T. Jones, David W. Harrison

Cognitive and Behavioral Practice Available online 15 July 2017 https://doi.org/10.1016/j.cbpra.2017.06.003 This case study aims to provide evidence for the effectiveness of adapting a particular manualized cognitive behavioral therapy intervention to treat co-occurring posttraumatic stress disorder (PTSD) and mild traumatic brain injury (mTBI). This study presents the treatment of a woman who experienced co-occurring mTBI and PTSD following a motor vehicle accident, a dual diagnosis that was established through a flexible assessment approach involving interviews as well as standardized psychological, neuropsychological, and neurobehavioral testing. Treatment planning led to a-priori adaptation of Cognitive Processing Therapy (CPT) to treat both her PTSD symptoms and the sequelae associated with her mTBI. The therapist maintained fidelity to the manualized structure and content of CPT protocol, adapting portions of the treatment to add specific emphasis on issues of identity confusion and role loss in service of addressing these common functional impairments that can accompany mTBI. Discussion focuses on application of CPT for future treatment of comorbid PTSD and TBI amidst complicating factors, including role losses and medical and safety issues. This case study is especially relevant due to the prevalence of co-occurring PTSD and TBI across a variety of populations.

http://www.sciencedirect.com/science/article/pii/S2352250X17301896

From Ideation to Action: Recent Advances in Understanding Suicide Capability.

Alexis M. May, Sarah E. Victor

Current Opinion in Psychology Available online 14 July 2017 https://doi.org/10.1016/j.copsyc.2017.07.007

Suicide capability is one of few risk factors associated with suicide attempts among ideators. In the decade since the Interpersonal Psychological Theory of Suicide introduced the concept of acquired capability (i.e., the ability to face the fear and pain associated with death), understanding of the capability to attempt suicide has grown. Acquired (e.g. NSSI), dispositional (e.g., genetic), and practical contributors (e.g., access to firearms) appear to influence suicide capability via mechanisms such as the fear of death, persistence through pain, and familiarity with suicide methods. Self-report methods have shown mixed results, highlighting the importance of developing behavioral measures of suicide capability.

http://www.sciencedirect.com/science/article/pii/S0010440X17300378

The Influence of Traumatic Brain Injury on Treatment Outcomes of Concurrent Treatment for PTSD and Substance Use Disorders Using Prolonged Exposure (COPE) in Veterans.

Daniel F. Gros, Cynthia L. Lancaster, Michael David Horner, Derek D. Szafranski, Sudie E. Back

Comprehensive Psychiatry Available online 17 July 2017 https://doi.org/10.1016/j.comppsych.2017.07.004

Background

The co-occurrence of posttraumatic stress disorder (PTSD), substance use disorders (SUD), and traumatic brain injury (TBI) in veterans of Operations Enduring/Iraqi Freedom and New Dawn has received much attention in the literature. Although hypotheses have been presented and disseminated that TBI history will negatively influence treatment response, little data exist to support these claims. The present study investigates the influence of TBI history on response to COPE (Concurrent Treatment of PTSD and SUD Using Prolonged Exposure), a 12-session, integrated psychotherapy designed to address co-occurring PTSD and SUD.

Method

Participants were 51 veterans with current PTSD and SUD enrolled in a clinical trial examining COPE. Assessments of PTSD symptoms, substance use, and depression were collected at baseline and each treatment session. A TBI measure was used to dichotomize veterans into groups with and without a history of TBI (ns = 30 and 21, respectively).

Results

Participants with and without TBI history demonstrated significant improvements in PTSD and depression symptoms during the course of treatment. However, participants with TBI history experienced less improvement relative to participants without TBI history.

Conclusions

The present findings suggest that, although patients with a TBI history respond to treatment, their response to treatment was less so than that observed in patients

without a TBI history. As such, identification, symptom monitoring, and treatment practices may require alteration and further special consideration in individuals with PTSD, SUD and TBI.

http://www.jad-journal.com/article/S0165-0327(17)30355-5/fulltext

Economic evaluations of internet- and mobile-based interventions for the treatment and prevention of depression: A systematic review.

Sarah Paganini, Wiebke Teigelkötter, Claudia Buntrock, Harald Baumeister

Journal of Affective Disorders Published online: July 17, 2017 DOI: http://dx.doi.org/10.1016/j.jad.2017.07.018

Background

Internet- and mobile-based interventions (IMIs) targeting depression have been shown to be clinically effective and are considered a cost-effective complement to established interventions. The aim of this review was to provide an overview of the evidence for the cost-effectiveness of IMIs for the treatment and prevention of depression.

Methods

A systematic database search was conducted (Medline, PsychInfo, CENTRAL, PSYNDEX, OHE HEED). Relevant articles were selected according to defined eligibility criteria. IMIs were classified as cost-effective if they were below a willingness-to-pay threshold (WTP) of €22,845 (£20,000) - €34,267 (£30,000) according to the National Institute for Health and Clinical Excellence (NICE) standard. Study quality was assessed using the Consolidated Health Economic Evaluation Reporting Standard guidelines and the Cochrane Risk of Bias Tool.

Results

Of 1,538 studies, seven economic evaluations of IMIs for the treatment of major depression, four for the treatment of subthreshold/minor depression and one for the prevention of depression. In six studies, IMIs were classified as likely to be cost-effective with an incremental cost-utility ratio between €3,088 and €22,609. All of these IMIs were guided. Overall quality of most economic evaluations was evaluated as good. All studies showed some risk of bias.

Limitations

The studies used different methodologies and showed some risk of bias. These aspects as well as the classification of cost-effectiveness according to the WTP proposed by NICE should be considered when interpreting the results.

Conclusions

Results indicate that guided IMIs for the treatment of (subthreshold) depression have the potential to be a cost-effective complement to established interventions, but more methodologically sound studies are needed.

https://www.ncbi.nlm.nih.gov/pubmed/27280745?dopt=Abstract

Psychol Assess. 2017 Apr;29(4):382-393. doi: 10.1037/pas0000349. Epub 2016 Jun 9

Individuals at high risk for suicide are categorically distinct from those at low risk.

Witte TK, Holm-Denoma JM, Zuromski KL, Gauthier JM, Ruscio J3

Although suicide risk is often thought of as existing on a graded continuum, its latent structure (i.e., whether it is categorical or dimensional) has not been empirically determined. Knowledge about the latent structure of suicide risk holds implications for suicide risk assessments, targeted suicide interventions, and suicide research. Our objectives were to determine whether suicide risk can best be understood as a categorical (i.e., taxonic) or dimensional entity, and to validate the nature of any obtained taxon. We conducted taxometric analyses of cross-sectional, baseline data from 16 independent studies funded by the Military Suicide Research Consortium. Participants (N = 1,773) primarily consisted of military personnel, and most had a history of suicidal behavior. The Comparison Curve Fit Index values for MAMBAC (.85), MAXEIG (.77), and L-Mode (.62) all strongly supported categorical (i.e., taxonic) structure for suicide risk. Follow-up analyses comparing the taxon and complement groups revealed substantially larger effect sizes for the variables most conceptually similar to suicide risk compared with variables indicating general distress. Pending replication and establishment of the predictive validity of the taxon, our results suggest the need for a fundamental shift in suicide risk assessment, treatment, and research. Specifically, suicide risk assessments could be shortened without sacrificing validity, the most potent suicide interventions could be allocated to individuals in the high-risk group,

and research should generally be conducted on individuals in the high-risk group. (PsycINFO Database Record (c) 2017 APA, all rights reserved).

Links of Interest

Kevlar for the Mind: 4 tips to fight back when anxiety attacks <u>http://www.militarytimes.com/articles/kevlar-for-the-mind-4-tips-to-fight-back-when-anxiety-attacks</u>

How to Relieve Severe Stress: If nothing you've tried helps, it's time to bring in the experts

http://www.consumerreports.org/stress/how-to-relieve-severe-stress/

Med Switch Not Always Best Choice With Tough Depression https://medlineplus.gov/news/fullstory_167127.html

PTSD may be physical and not only psychological https://www.sciencedaily.com/releases/2017/07/170711171704.htm

You're not yourself when you're sleepy https://www.sciencedaily.com/releases/2017/07/170717120048.htm

The dangers of driving after restricted sleep and moderate alcohol intake https://www.sciencedaily.com/releases/2017/07/170719084720.htm

Depression affects the brains of males and females differently https://www.sciencedaily.com/releases/2017/07/170711085522.htm

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