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Research Update -- April 19, 2018

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Air Force photo by Airman 1st Class Valerie Monroy

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http://www.tandfonline.com/doi/full/10.1080/15402002.2018.1425867

Identification of Distinct Latent Classes Related to Sleep, PTSD, Depression, and Anxiety in Individuals Diagnosed With Severe Alcohol Use Disorder.

Gwenyth R. Wallen, Jumin Park, Michael Krumlauf & Alyssa T. Brooks

Objective/Background:
Alcohol use disorders (AUDs) are often accompanied by comorbid physiologic and psychosocial conditions, including sleep disturbances. Sleep disturbances in these individuals may be associated with increased risk of relapse to drinking following detoxification and rehabilitation.

Participants:
The sample of inpatient treatment-seeking individuals with AUDs (N = 164) was 70.1% male and 47.6% African American with a mean age of 45.6 years (±9.5 years). Methods: Latent class analysis (LCA) was used to identify unmeasured class membership based on seven indicators: maximum Clinical Institute Withdrawal Assessment (CIWA) scores; sleep efficiency (actigraphy); sleep disturbances (Pittsburgh Sleep Quality Index-PSQI); anxiety or depression (Comprehensive Psychopathological Rating Scale [CPRS]); and current and lifetime posttraumatic stress disorder (PTSD).

Results:
The average number of drinking days in the 90 days preceding admission was 72.0 (±22.0 days), with an average of 13.16 drinks per day (±5.70 drinks). Nearly one quarter (24.4%) of respondents reported lifetime PTSD. Three latent classes were identified: Sleep Disturbance (SD); Sleep Disturbance, Anxiety and Depression (SD/AD); and Sleep Disturbance, Anxiety and Depression, and PTSD (SD/AD/PTSD). Members of the SD/AD/PTSD group were more likely to be female and had the highest withdrawal and sleep disturbance scores of all three groups.

Conclusion:
Findings support the use of LCA to identify subgroups of individuals with AUDs and accompanying sleep disturbances. Class identification may provide clinicians with insight into the integrative tailoring of interventions that meet the varied needs of individuals with AUDs, accompanying comorbidities, and sleep disturbances.

The effectiveness of behavioural and cognitive behavioural therapies for insomnia on depressive and fatigue symptoms: A systematic review and network meta-analysis.

Andrea Ballesio, Maria Raisa Jessica V. Aquino, Bernd Feige, Anna F. Johann, ... Chiara Baglioni

This review aimed to assess the impact of behavioural therapy for insomnia administered alone (BT-I) or in combination with cognitive techniques (cognitive-behavioural therapy for insomnia, CBT-I) on depressive and fatigue symptoms using network meta-analysis. PubMed, Scopus and Web of Science were searched from 1986 to May 2015. Studies were included if they incorporated sleep restriction, a core technique of BT-I treatment, and an adult insomnia sample, a control group and a standardised measure of depressive and/or fatigue symptoms. Face-to-face, group, self-help and internet therapies were all considered. Forty-seven studies were included in the meta-analysis. Eleven classes of treatment or control conditions were identified in

the network. Cohen's d at 95% confidence interval (CI) was calculated to assess the effect sizes of each treatment class as compared with placebo. Results showed significant effects for individual face-to-face CBT-I on depressive (d = 0.34, 95% CI: 0.06–0.63) but not on fatigue symptoms, with high heterogeneity between studies. The source of heterogeneity was not identified even after including sex, age, comorbidity and risk of bias in sensitivity analyses. Findings highlight the need to reduce variability between study methodologies and suggest potential effects of individual face-to-face CBT-I on daytime symptoms.

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http://jcsm.aasm.org/ViewAbstract.aspx?pid=31185

Reliability of the American Academy of Sleep Medicine Rules for Assessing Sleep Depth in Clinical Practice.

Younes M, Kuna ST, Pack AI, Walsh JK, Kushida CA, Staley B, Pien GW.

Study Objectives
The American Academy of Sleep Medicine has published manuals for scoring polysomnograms that recommend time spent in non-rapid eye movement sleep stages (stage N1, N2, and N3 sleep) be reported. Given the well-established large interrater variability in scoring stage N1 and N3 sleep, we determined the range of time in stage N1 and N3 sleep scored by a large number of technologists when compared to reasonably estimated true values.

Methods
Polysomnograms of 70 females were scored by 10 highly trained sleep technologists, two each from five different academic sleep laboratories. Range and confidence interval (CI = difference between the 5th and 95th percentiles) of the 10 times spent in stage N1 and N3 sleep assigned in each polysomnogram were determined. Average values of times spent in stage N1 and N3 sleep generated by the 10 technologists in each polysomnogram were considered representative of the true values for the individual polysomnogram. Accuracy of different technologists in estimating delta wave duration was determined by comparing their scores to digitally determined durations.

Results

The CI range of the ten N1 scores was 4 to 39 percent of total sleep time (% TST) in different polysomnograms (mean CI ± standard deviation = 11.1 ± 7.1 % TST). Corresponding range for N3 was 1 to 28 % TST (14.4 ± 6.1 % TST). For stage N1 and N3 sleep, very low or very high values were reported for virtually all polysomnograms by different technologists. Technologists varied widely in their assignment of stage N3 sleep, scoring that stage when the digitally determined time of delta waves ranged from 3 to 17 seconds.

Conclusions

Manual scoring of non-rapid eye movement sleep stages is highly unreliable among highly trained, experienced technologists. Measures of sleep continuity and depth that are reliable and clinically relevant should be a focus of clinical research.

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Stroop Task-Related Brain Activity in Patients With Insomnia: Changes After Cognitive-Behavioral Therapy for Insomnia.

Jeong Yeon Hwang, Nambeom Kim, Soohyun Kim, Juhyun Park, Jae-Won Choi, Seog Ju Kim, Chang-Ki Kang & Yu Jin Lee

Objective/Background:
In the present study, we compared differences in brain activity during the Stroop task between patients with chronic insomnia disorder (CID) and good sleepers (GS). Furthermore, we evaluated changes in Stroop task-related brain activity after cognitive–behavioral therapy for insomnia (CBT-I).

Participants/Methods:
The final analysis included 21 patients with CID and 25 GS. All participants underwent functional magnetic resonance imaging (fMRI) while performing the color–word Stroop task. CBT-I, consisting of 5 sessions, was administered to 14 patients with CID in the absence of medication. After CBT-I, fMRI was repeated in the patients with CID while

performing the same task. Sleep-related questionnaires and sleep variables from a sleep diary were also obtained before and after CBT-I.

Results:
No significant differences in behavioral performance in the Stroop task or task-related brain activation were observed between the CID and GS groups. No changes in behavioral performance or brain activity were found after CBT-I. However, clinical improvement in the Insomnia Severity Index (ISI) score was significantly associated with changes in the Stroop task-related regional blood oxygen level-dependent signals in the left supramarginal gyrus.

Conclusions:
Our findings suggest that cognitive impairment in patients with CID was not detectable by the Stroop task or Stroop task-related brain activation on fMRI. Moreover, there was no altered brain activity during the Stroop task after CBT-I. However, the ISI score reflected changes in the neural correlates of cognitive processes in patients with CID after CBT-I.

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http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0192088

Nocturnal insomnia symptoms and stress-induced cognitive intrusions in risk for depression: A 2-year prospective study.

David A. Kalmbach, Vivek Pillai, Christopher L. Drake

Nearly half of US adults endorse insomnia symptoms. Sleep problems increase risk for depression during stress, but the mechanisms are unclear. During high stress, individuals having difficulty falling or staying asleep may be vulnerable to cognitive intrusions after stressful events, given that the inability to sleep creates a period of unstructured and socially isolated time in bed. We investigated the unique and combined effects of insomnia symptoms and stress-induced cognitive intrusions on risk for incident depression. 1126 non-depressed US adults with no history of DSM-5 insomnia disorder completed 3 annual web-based surveys on sleep, stress, and depression. We examined whether nocturnal insomnia symptoms and stress-induced

cognitive intrusions predicted depression 1y and 2y later. Finally, we compared depression-risk across four groups: non-perseverators with good sleep, non-perseverators with insomnia symptoms, perseverators with good sleep, and perseverators with insomnia symptoms. Insomnia symptoms (β = .10–.13, p < .001) and cognitive intrusions (β = .19–.20, p < .001) predicted depression severity 1y and 2y later. Depression incidence across 2 years was 6.2%. Perseverators with insomnia had the highest rates of depression (13.0%), whereas good sleeping non-perseverators had the lowest rates (3.3%, Relative Risk = 3.94). Perseverators with sleep latency >30 m reported greater depression than good sleeping perseverators (t = 2.09, p < .04). Cognitive intrusions following stress creates a depressogenic mindset, and nocturnal wakefulness may augment the effects of cognitive arousal on depression development. Poor sleepers may be especially vulnerable to cognitive intrusions when having difficulty initiating sleep. As treatable behaviors, nighttime wakefulness and cognitive arousal may be targeted to reduce risk for depression in poor sleepers.

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https://www.sciencedirect.com/science/article/pii/S0165032717314386

Heterogeneity of sleep quality in relation to circadian preferences and depressive symptomatology among major depressive patients.

Yavuz Selvi, Murat Boysan, Ali Kandeger, Omer F. Uygur, ... Basak Koc

Background
The current study aimed at investigating the latent dimensional structure of sleep quality as indexed by the seven components of the Pittsburgh Sleep Quality Index (PSQI), as well as latent covariance structure between sleep quality, circadian preferences and depressive symptoms.

Methods
Two hundred twenty-five patients with major depressive disorder (MDD), with an average age of 29.92±10.49 years (aged between17–63), participated in the study. The PSQI, Morningness–Eveningness Questionnaire (MEQ) and Beck Depression Inventory (BDI) were administered to participants. Four sets of latent class analyses were subsequently run to obtain optimal number of latent classes best fit to the data.

Results
Mixture models revealed that sleep quality is multifaceted in MDD. The data best fit to four-latent-class model: Poor Habitual Sleep Quality (PHSQ), Poor Subjective Sleep Quality (PSSQ), Intermediate Sleep Quality (ISQ), and Good Sleep Quality (GSQ). MDD patients classified into GSQ latent class (23.6%) reported the lowest depressive symptoms and were more prone to morningness diurnal preferences compared to other three homogenous sub-groups. Finally, the significant association between eveningness diurnal preferences and depressive symptomatology was significantly mediated by poor sleep quality.

Limitation
The cross-sectional nature of the study and the lack of an objective measurement of sleep such as polysomnography recordings was the most striking limitation of the study.

Conclusions
We concluded sleep quality in relation to circadian preferences and depressive symptoms has a heterogeneous nature in MDD.

A Tale of Two Families: Helping Military Couples Understand and Accept a Returning Soldier's "Unit Family" Into Their Relationship.

Charles R. McAdams, III, Victoria A. Foster, David R. Gosling

During military deployment, soldiers can become part of a system of people and experiences in their assigned military unit that may rival the importance of relationships and experiences within their natural families at home. Following deployment, returning soldiers may face the challenges of managing membership in two complex and powerful family systems, each with its own unique priorities, rules of engagement, and demands for the soldier's attention and participation that may not always be compatible. Achieving a mutual understanding of the system of close relationships formed around

military deployment and incorporating this new "unit family" system into a couple's marital relationship and natural family system becomes a task that is important and, possibly, essential to successful family reintegration after deployment.

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http://journals.sagepub.com/doi/abs/10.1177/1534650118766660

Prolonged Exposure Therapy for Experiential Avoidance: A Case-Series Study.

Bita Ghafoori

Past research has found that experiential avoidance (EA) is a type of avoidance that is common in individuals who report distress associated with traumatic events. No treatment studies to date have evaluated potential changes in EA associated with prolonged exposure therapy (PE), an empirically supported treatment for traumatic distress. This case series presents outcomes associated with treatment by PE for five adults who presented with posttraumatic stress disorder (PTSD), comorbid generalized anxiety disorder (GAD), and problematic EA. PTSD, GAD, depression, and EA symptoms were monitored at baseline, post-treatment, and 1-month follow-up. The five participants reported decreases in PTSD to below clinical cutoff criteria at post-treatment, all five participants reported decreases in depression at post-treatment, and four of the participants showed decreases in GAD and EA at post-treatment. In comparing pre-treatment to 1-month follow-up scores, all the participants reported decreases in PTSD, GAD, depression, and all but one participant reported a decrease in EA. The findings of this study suggest that PE may be a helpful treatment for individuals reporting EA.

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https://www.tandfonline.com/doi/full/10.1080/08995605.2017.1420979

A qualitative analysis of strategies for managing suicide-related events during deployment from the perspective of Army behavioral health providers, chaplains, and leaders.

Abby Adler, Sadia Chadhury, Barbara Stanley, Marjan Ghahramanlou-Holloway, Ashley Bush & Gregory K. Brown

The purpose of this qualitative study was to investigate the use of strategies for managing suicide-related events (SREs; i.e., suicide deaths, suicide attempts, and suicidal ideation with a plan and intent to die) during deployment from the perspective of Army decision makers: behavioral health providers (BHPs), chaplains, and leaders. A total of 76 Army personnel participated in individual interviews or focus groups. Participants identified unit watch, weapon removal, medical evacuations, and debriefings as common strategies used to manage SREs in deployed settings. Many of these strategies were highlighted as short-term solutions only. Participants also underscored the importance of unit cohesion and communication among leaders, BHPs, and chaplains to effectively manage SREs. The need for structured guidelines for successfully managing SREs in deployed settings is discussed.

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Relation between coping and posttrauma cognitions on PTSD in a combat-trauma population.

Christina M. Sheerin, Nadia Chowdhury, Mackenzie J. Lind, Erin D. Kurtz, Lance M. Rappaport, Erin C. Berenz, Ruth C. Brown, Treven Pickett, Scott D. McDonald, Carla Kmett Danielson & Ananda B. Amstadter

Individual differences in cognitive processes and coping behaviors play a role in the development and maintenance of posttraumatic stress disorder (PTSD). Given the large numbers of combat-exposed service members returning from the Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND) conflicts, exploring individual differences in cognitive-affective processes is important for informing our understanding of PTSD etiology and early intervention in military samples.

The present study examined the unique main and interactive effects of negative posttrauma cognitions (i.e., negative beliefs about self [NS], the world [NW], and self-blame [SB]) and coping strategies (i.e., positive behavioral, positive cognitive, avoidant coping, and social and emotional coping) on PTSD diagnosis within 155 (Mage = 30.7, SD = 4.48) OEF/OIF/OND combat trauma-exposed Veterans recruited from an ongoing study examining the effects of combat trauma and stress reactivity. In the final, stepwise logistic regression analysis, avoidant coping, but no other coping strategy, was significantly positively related to PTSD diagnosis in the initial step. Higher levels of NS, but not NW, were significantly associated with having a PTSD diagnosis, whereas SB was associated with decreased likelihood of PTSD, above and beyond coping strategies. A significant interaction effect was found between NS and positive cognitive coping, such that greater positive cognitive coping weakened the relationship between NS and PTSD. Examining and addressing coping behaviors and negative thoughts of self jointly may benefit assessment and intervention approaches in a combat-trauma population.

Paradoxical olfactory function in combat Veterans: The role of PTSD and odor factors.

Allison K. Wilkerson, Thomas W. Uhde, Kimberly Leslie, W. Connor Freeman, Steven D. LaRowe, Aicko Y. Schumann & Bernadette M. Cortese

Stress- and trauma-related disorders, including posttraumatic stress disorder (PTSD), are characterized by an increased sensitivity to threat cues. Given that threat detection is a critical function of olfaction and that combat trauma is commonly associated with burning odors, we sought a better understanding of general olfactory function as well as response to specific trauma-related (i.e. burning) odors in combat-related PTSD. Trauma-exposed combat Veterans with (n = 22) and without (n = 25) PTSD were assessed for general and specific odor sensitivities using a variety of tools. Both groups had similar general odor detection thresholds. However, the combat Veterans with PTSD, compared to combat Veterans with comparable trauma exposure but without PTSD, had increased ratings of odor intensity, negative valence, and odor-triggered

PTSD symptoms, along with a blunted heart rate in response to burning rubber odor. These findings are discussed within the context of healthy versus pathological changes in olfactory processing that occur over time after psychological trauma.

The effect of hardiness on PTSD symptoms: A prospective mediational approach.

Ådne G. Thomassen, Sigurd W. Hystad, Bjørn Helge Johnsen, Grethe E. Johnsen & Paul T. Bartone

Psychological hardiness has been associated with lower PTSD in military personnel, but the processes of action remain unclear. This study uses a prospective design to examine whether hardiness has an indirect effect on PTSD symptoms through avoidance coping. Our sample included 163 Norwegian military personnel who served in international operations between 2009 and 2010. Regression analyses were performed to estimate the coefficients in a simple mediation model, with baseline PTSD symptoms, combat exposure, and deprivation of basic needs entered as control variables. The results showed that the effect of hardiness on PTSD symptoms worked through reducing the use of avoidance coping. It was concluded that an avoidant-focused coping style acts as a vulnerability factor for PTSD symptoms, whereas hardiness acts as a resilience factor against symptoms development.

The impact of posttraumatic growth, transformational leadership, and self-efficacy on PTSD and depression symptom severity among combat Veterans.

Michael A. LaRocca, Forrest R. Scogin, Michelle M. Hilgeman, Andrew J. Smith & William F. Chaplin

Previous research has established self-efficacy as essential to postdeployment adjustment among Veterans, and perceived transformational leadership is well known for its positive effects on follower outcomes across contexts. However, little is known regarding how transformational leadership may relate to posttraumatic growth and self-efficacy in fostering psychological wellbeing among combat Veterans. The purpose of this study was to examine the role of transformational leadership in predicting posttraumatic stress disorder (PTSD) and depression symptoms among combat Veterans, as well as how posttraumatic growth and postdeployment coping self-efficacy may influence these relations. The study sample consisted of 130 combat Veterans recruited from a university, Veterans Affairs medical center, and the greater community. Path analysis based on bootstrapped resampling revealed postdeployment coping self-efficacy and perceived transformational leadership as predictors of lower PTSD and depression symptom severity. In addition, mediation modeling revealed that postdeployment coping self-efficacy mediated the relation between transformational leadership and both PTSD and depression, while posttraumatic growth did not predict PTSD symptoms. These findings may aid in the prediction of PTSD and depression symptoms among Veterans, which may then influence pre-deployment leadership training among military personnel as well as clinical treatment protocols for Veterans.

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https://academic.oup.com/milmed/advance-article-abstract/doi/10.1093/milmed/usy027/4959949

Clinical, Empirical, and Theoretical Rationale for Selection of Accelerated Resolution Therapy for Treatment of Post-traumatic Stress Disorder in VA and DoD Facilities.

Kevin E Kip, PhD, David M Diamond, PhD

Introduction
Post-traumatic stress disorder (PTSD) is a chronic, disabling psychiatric disorder

prevalent among U.S. service members and veterans. First-line treatments for PTSD endorsed in the 2017 Veterans Affairs (VA)/Department of Defense (DoD) Clinical Practice Guideline for PTSD emphasize individual, manualized trauma-focused psychotherapies that have a primary component of exposure and/or cognitive restructuring. These include prolonged exposure (PE) therapy, cognitive processing therapy (CPT), eye movement desensitization and reprocessing (EMDR), and others. Accelerated resolution therapy (ART) is an emerging trauma-focused therapy not specifically referenced in the guideline, but one that is consistent with the recommendations and is derived directly from EMDR. One randomized clinical trial and multiple observational studies have suggested that ART can be delivered in an average of just four treatment sessions. This commentary reviews the clinical, empirical, and theoretical rationale for use of ART as a potential first-line PTSD treatment modality in VA and DoD facilities.

Materials and Methods

The clinical protocol of ART is summarized into discrete procedural steps. The theoretical rationale as to how ART may help clients process traumatic memories and resolve symptoms of PTSD is also discussed, including how repeated sets of smooth pursuit horizontal eye movements may facilitate a relaxation response and assist with processing emotionally intrusive memories. Herein, we review primary treatment results from four published studies of ART, including mean symptom score reductions on the 17-item PCL (PTSD checklist) after treatment with ART, along with effect sizes and percentage of treatment responders. Finally, the ART protocol is compared directly against specific recommended elements of trauma-focused therapy described in the VA/DoD Clinical Practice Guideline.

Results

The four published studies of ART reviewed (n = 291) included adult civilians and service members/veterans; the mean age was 42.3 ± 12.3 yr and 28.9% were female. Among 237 treatment completers (81.4% of the combined cohort), the mean number of ART sessions received was 3.9 ± 1.1. Across the four studies, mean treatment-related reductions in PCL scores ranged from 15.6 ± 13.2 to 25.6 ± 11.3, with a pooled mean reduction on the PCL of 20.6 ± 15.0. Effect sizes were large and ranged from 1.18 to 2.26 (p< 0.0005) across studies, with a pooled effect size of 1.38 (95% confidence interval: 1.20–1.56, p < 0.0001). Using the clinical cutpoint of >10-point reduction on the PCL instrument, clinically significant change (response) ranged from 63.8% to 100.0% across the four studies, with a pooled treatment response rate of 74.7%. Results were nominally attenuated when conservatively assuming no treatment response for non-completers.

Conclusion

The ART protocol contains the core therapeutic elements and aligns closely with the current VA/DoD Clinical Practice Guideline. It has a plausible theoretical rationale and an evolving empirical research base that includes four studies with peer-reviewed publications, one of which was a randomized controlled trial. These features, along with the brevity of the treatment protocol, no requirement for narration, and high provider satisfaction rates, provide a rationale for the potential use of ART as a first-line PTSD treatment modality for active duty and veteran military personnel.

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https://ps.psychiatryonline.org/doi/abs/10.1176/appi.ps.201700478

Adapting Disclosure Programs to Reduce the Stigma of Mental Illness.

Patrick W. Corrigan, Psy.D., Nicolas Rüsch, M.D., Katrina Scior, Ph.D., Clin.Psy.D.

A 2016 report from the National Academy of Sciences describes strategies that reduce the stigma of mental illness. Prominent among these are contact between people with and without mental illness and strategic disclosure for lessening both public and self-stigma. The report also recognizes the complexity of stigma in the realm of psychiatric phenomena. As a socially constructed phenomenon, mental illness stigma intersects with race-ethnicity, gender, age, and sexual orientation to affect ways in which it is perceived and experienced. Stigma also differs by condition, such as mental illness versus substance use disorder. Hence, antistigma strategies need to actively incorporate diversity concerns into future adaptation. This Open Forum reviews adaptations of the Honest, Open, Proud (HOP) program to reflect adaptation challenges for age and condition. HOP is an evidence-based program that involves strategic disclosure to manage both self- and public stigma. This essay ends with consideration of the additional intersectionality challenges of adaptation.

Improving risk prediction accuracy for new soldiers in the U.S. Army by adding self-report survey data to administrative data.

Samantha L. Bernecker, Anthony J. Rosellini, Matthew K. Nock, Wai Tat Chiu, Peter M. Gutierrez, Irving Hwang, Thomas E. Joiner, James A. Naifeh, Nancy A. Sampson, Alan M. Zaslavsky, Murray B. Stein, Robert J. Ursano and Ronald C. Kessler

Background
High rates of mental disorders, suicidality, and interpersonal violence early in the military career have raised interest in implementing preventive interventions with high-risk new enlistees. The Army Study to Assess Risk and Resilience in Servicemembers (STARRS) developed risk-targeting systems for these outcomes based on machine learning methods using administrative data predictors. However, administrative data omit many risk factors, raising the question whether risk targeting could be improved by adding self-report survey data to prediction models. If so, the Army may gain from routinely administering surveys that assess additional risk factors.

Methods
The STARRS New Soldier Survey was administered to 21,790 Regular Army soldiers who agreed to have survey data linked to administrative records. As reported previously, machine learning models using administrative data as predictors found that small proportions of high-risk soldiers accounted for high proportions of negative outcomes. Other machine learning models using self-report survey data as predictors were developed previously for three of these outcomes: major physical violence and sexual violence perpetration among men and sexual violence victimization among women. Here we examined the extent to which this survey information increases prediction accuracy, over models based solely on administrative data, for those three outcomes. We used discrete-time survival analysis to estimate a series of models predicting first occurrence, assessing how model fit improved and concentration of risk increased when adding the predicted risk score based on survey data to the predicted risk score based on administrative data.

Results
The addition of survey data improved prediction significantly for all outcomes. In the

most extreme case, the percentage of reported sexual violence victimization among the 5% of female soldiers with highest predicted risk increased from 17.5% using only administrative predictors to 29.4% adding survey predictors, a 67.9% proportional increase in prediction accuracy. Other proportional increases in concentration of risk ranged from 4.8% to 49.5% (median = 26.0%).

Conclusions
Data from an ongoing New Soldier Survey could substantially improve accuracy of risk models compared to models based exclusively on administrative predictors. Depending upon the characteristics of interventions used, the increase in targeting accuracy from survey data might offset survey administration costs.

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https://link.springer.com/article/10.1007/s12207-018-9315-0

Malingered Posttraumatic Stress Disorder (PTSD) and the Effect of Direct Versus Indirect Trauma Exposure on Symptom Profiles and Detectability.

Elizabeth G. Szogi, Karen A. Sullivan

Posttraumatic stress disorder (PTSD) is arguably prone to malingering due to its subjective and heterogeneous nature. Various factors can influence PTSD symptom profiles including trauma type and trauma exposure. However, it is unknown whether trauma exposure influences malingered PTSD symptom profiles. We used a malingering simulation design with trauma type controlled to compare (1) PTSD symptom profiles (Posttraumatic Stress Checliklist-5; PCL-5) at the syndrome, symptom cluster, and individual symptom levels and (2) symptom validity profiles (Structured Inventory of Malingered Symptomatology; SIMS) at the overall and subscale level, as a function of direct and indirect trauma exposure. Seventy-three participants were randomly assigned to either the direct ("witnessed" trauma) or indirect ("learned about" trauma) condition. Participants were coached about symptoms and instructed to simulate PTSD. PCL-5 profile analyses revealed that simulators in the direct exposure group reported greater overall PTSD severity. Significant differences were found on cluster D (changes in cognition and mood) and individual symptoms including intrusive thoughts, amnesia, difficulty experiencing positive emotions, and risk-taking. No

differences were identified for any other symptom scores nor for the symptom validity profile, except for the SIMS total score (direct: M = 33.0, SD = 12.8, indirect: M = 26.5, SD = 13.9, t(71) = 2.06, p = .043, d = .48). These findings indicate that trauma exposure can influence malingered PTSD profiles at the syndrome, symptom cluster, and individual symptom levels (small effects), but, with one exception for a summary score, it does not produce a detectable difference on symptom validity testing. This study may provide insight for clinicians into the how malingered PTSD profiles can manifest as a result of direct and indirect trauma exposure; however, further research is strongly indicated.

TRR's Warrior Camp: An Intensive Treatment Program for Combat Trauma in Active Military and Veterans of All Eras.

Emily Steele, MSW David S Wood, MS, ARNG Eva J Usadi, MA, BCD D Michael Applegarth, BSW

Effective treatments for combat trauma in military service members exist, but barriers to care abound, including poor access, stigma, and dropout. Although the effects of post-traumatic stress disorder (PTSD) can be severe, recovery is possible when proper treatment is implemented. Trauma and Resiliency Resources, Inc.'s Warrior Camp (WC) program is designed to address the effects of combat trauma in military service members and veterans. This intensive, 7-d treatment incorporates eye movement desensitization and reprocessing therapy, equine-assisted psychotherapy, yoga, and narrative writing in context of community. This single-group pretest–posttest design included paired t-tests and effect size analyses for 85 participants of WC. Outcome measures included the Mississippi Scale for Combat-related PTSD, the Patient Health Questionnaire, the Revised Adult Attachment Scales, and the Moral Injury Events Scale. Clinician-administered measures included the Davidson Trauma Scale and the Dissociative Experiences Scale. All measures showed statistically significant reductions in distress. The effect sizes ranged from small to large. Results suggest that WC participants experienced significant improvement in PTSD, depression, moral injury, dissociation and adult attachment. Clinicians should consider the potential benefits of

this short-term, intensive treatment when addressing combat-related PTSD among military service members and veterans.

PHIT for Duty, a Mobile Application for Stress Reduction, Sleep Improvement, and Alcohol Moderation.

Paul N Kizakevich, MS, PE Randall Eckhoff, BS Janice Brown, PhD Stephen J Tueller, PhD Belinda Weimer, MA Stacey Bell, MA Adam Weeks, MS Laurel L Hourani, PhD James L Spira, PhD, MPH Laurel A King, PhD

Post-traumatic stress and other problems often occur after combat, deployment, and other military operations. Because techniques such as mindfulness meditation show efficacy in improving mental health, our team developed a mobile application (app) for individuals in the armed forces with subclinical psychological problems as secondary prevention of more significant disease. Based on the Personal Health Intervention Toolkit (PHIT), a mobile app framework for personalized health intervention studies, PHIT for Duty integrates mindfulness-based relaxation, behavioral education in sleep quality and alcohol use, and psychometric and psychophysiological data capture. We evaluated PHIT for Duty in usability and health assessment studies to establish app quality for use in health research. Participants (N = 31) rated usability on a 1 (very hard) to 5 (very easy) scale and also completed the System Usability Scale (SUS) questionnaire (N = 9). Results were (mean ± SD) overall (4.5 ± 0.6), self-report instruments (4.5 ± 0.7), pulse sensor (3.7 ± 1.2), sleep monitor (4.4 ± 0.7), sleep monitor comfort (3.7 ± 1.1), and wrist actigraphy comfort (2.7 ± 0.9). The average SUS score was 85 ± 12, indicating a rank of 95%. A comparison of PHIT-based assessments to traditional paper forms demonstrated a high overall correlation (r = 0.87). These evaluations of usability, health assessment accuracy, physiological sensing, system acceptability, and overall functionality have shown positive results and affirmation for using the PHIT framework and PHIT for Duty application in mobile health research.

Links of Interest

12 Female Soldiers Have Now Graduated Army Ranger School
https://www.military.com/daily-news/2018/04/09/10-female-soldiers-have-now-graduated-army-ranger-school.html

Array of Markers Collectively Predicts MDD Treatment Response
https://www.medscape.com/viewarticle/895062

Louisiana veterans advocate for medical cannabis
https://www.militarytimes.com/veterans/2018/04/14/louisiana-veterans-advocate-for-medical-cannabis/

Two Decades of War Have Eroded the Morale of America's Troops
https://www.theatlantic.com/magazine/archive/2018/05/left-behind/556844/

Treating Males who Disclose Sexual Assault: A Primer for Providers
http://pdhealth.mil/news/blog/treating-males-who-disclose-sexual-assault-primer-providers

'Fear of Fear' May Influence OCD, PTSD Outcomes
https://www.medscape.com/viewarticle/895273

Preventive Cognitive Therapy Reduces Depressive Relapse or Recurrence
https://www.psychcongress.com/news/preventive-cognitive-therapy-reduces-depressive-relapse-or-recurrence

Judge: Trump's ban on transgender troops on hold until trial
https://www.militarytimes.com/news/pentagon-congress/2018/04/16/judge-trumps-ban-on-transgender-troops-on-hold-until-trial/

Coast Guard won't ban transgender members without direct policy barring them
http://thehill.com/policy/defense/383614-coast-guard-wont-ban-transgender-members-without-direct-policy-barring-them

First black woman nominated for Marine brigadier general
https://www.marinecorpstimes.com/news/your-marine-corps/2018/04/16/first-black-woman-nominated-for-marine-brigadier-general/

Marine Corps general fired for calling sexual harassment claims "fake news"
https://www.usatoday.com/story/news/politics/2018/04/16/marine-corps-general-fired-calling-sexual-harassment-claims-fake-news/522183002/

Administration to streamline student debt forgiveness for disabled veterans
https://www.stripes.com/news/us/administration-to-streamline-student-debt-forgiveness-for-disabled-veterans-1.522427

Suicides, crew chief shortages challenge Marine Forces Reserve
https://www.marinecorpstimes.com/news/your-marine-corps/2018/04/17/suicides-crew-chief-shortages-challenge-marine-forces-reserve/

Navy's Submarine Service Wants More Women
https://news.usni.org/2018/04/18/33022

Resource of the Week: A Video Tour of the CDP's Virtual Sleep Museum in Second Life

> In this video blog, Dr. Timothy Rogers welcomes you to the Snoozeum, CDP's virtual museum of sleep disorders. The Snoozeum is built in Second Life, a virtual world that allows for an immersive experience. Your avatar (the character that represents you virtually) can explore information and exhibits 24/7 and from any location with an Internet connection to learn more about the specifics of sleep disorders, how to assess for them, and treatment options from a behavioral health perspective. In addition to the Snoozeum, CDP regularly hosts real-time virtual trainings in Second life. You can learn more about Second Life on our website here. We hope to "see" you soon!

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