

CDP



Research Update -- November 14, 2019

What's Here:

- Treatment for posttraumatic stress disorder in patients with a history of traumatic brain injury: A systematic review.
- Symptom severity impacts sympathetic dysregulation and inflammation in post-traumatic stress disorder (PTSD).
- Mortality Among Veterans with Major Mental Illnesses Seen in Primary Care: Results of a National Study of Veteran Deaths.
- Understanding Cultural Humility Through the Lens of a Military Culture.
- Meta-analysis of risk factors for substance abuse in the US military.
- Body- and Movement-Oriented Interventions for Posttraumatic Stress Disorder: A Systematic Review and Meta-Analysis.
- Association Between Clinically Meaningful Posttraumatic Stress Disorder Improvement and Risk of Type 2 Diabetes.
- Reducing Suicidality Through Insomnia Treatment: Critical Next Steps in Suicide Prevention.
- Is digital cognitive behavioural therapy for insomnia effective in treating sub-threshold insomnia: A pilot RCT.
- Does cannabis use modify the effect of post-traumatic stress disorder on severe depression and suicidal ideation? Evidence from a population-based cross-sectional study of Canadians.

- Social connectedness, depression symptoms, and health service utilization: a longitudinal study of Veterans Health Administration patients.
- Evidence-based practice within supervision during psychology practitioner training: A systematic review.
- A systematic review of the accuracy of sleep wearable devices for estimating sleep onset.
- The longitudinal association between lifetime mental disorders and first onset or recurrent suicide ideation.
- Liability and Patient Suicide.
- The interaction of dissociation, pain tolerance, and suicidal ideation in predicting suicide attempts.
- Music Therapy With Military Populations: A Scoping Review.
- Mobile Neurofeedback for Pain Management in Veterans with TBI and PTSD.
- Provider Perspectives on Integrating Sensor-Captured Patient-Generated Data in Mental Health Care.
- Posttraumatic stress, alcohol use, and alcohol use motives among firefighters: The role of distress tolerance.
- Links of Interest
- Resource of the Week: Improving Behavioral Health Care Access and Treatment Options for Veterans with Co-Occurring Behavioral Health Problems (RAND)

<https://www.sciencedirect.com/science/article/pii/S0272735819302880>

Treatment for posttraumatic stress disorder in patients with a history of traumatic brain injury: A systematic review.

Ana Mikolić, Suzanne Polinder, Isabel R.A. Retel Helmrich, Juanita A. Haagsma, Maryse C. Cnossen

Clinical Psychology Review
 Available online 31 October 2019
<https://doi.org/10.1016/j.cpr.2019.101776>

Highlights

- Studies involving treatments for posttraumatic stress disorder (PTSD) in adult patients with history of traumatic brain injury (TBI) report a reduction of symptoms and no significant adverse effects
- Prolonged exposure (PE), cognitive-processing therapy (CPT) and other cognitive and behavioral therapies seem effective and appropriate for individuals who sustained a TBI
- Evidence is less strong for complementary and alternative treatments, hyperbaric oxygen therapy and brain and vestibular rehabilitation
- The relationship between TBI severity and the magnitude of PTSD treatment gains is unclear
- High-quality studies are required, and particularly studies involving civilians, females and patients with greater TBI severity

Abstract

Posttraumatic stress disorder (PTSD) frequently co-occurs with traumatic brain injury (TBI). We conducted a systematic review to evaluate the appropriateness and effectiveness of treatments for PTSD in adult patients with a history of TBI. We searched for longitudinal studies aimed at treatments for PTSD patients who sustained a TBI, published in English between 1980 and February 2019. Twenty-three studies were found eligible, and 26 case studies were included for a separate overview. The quality of eligible studies was assessed using the Research Triangle Institute item bank. The majority of studies included types of cognitive-behavioral therapy (CBT) in male service members and veterans with a history of mild TBI in the United States. Studies using prolonged exposure (PE), cognitive-processing therapy (CPT) or other types of CBT, usually in combination with additional treatments, showed favorable outcomes. A smaller number of studies described complementary and novel therapies, which showed promising results. Overall, the quality of studies was considered low. We concluded that CBT seem appropriate for the patient population with history of TBI. The evidence is less strong for other therapies. We recommend controlled studies of PTSD treatments including more female patients and those with a history of moderate to severe TBIs in civilian and military populations.

<https://www.sciencedirect.com/science/article/pii/S0889159119307032>

Symptom severity impacts sympathetic dysregulation and inflammation in post-traumatic stress disorder (PTSD).

Ida T. Fonkoue, Paul J. Marvar, Seth Norrholm, Yunxiao Li, ... Jeanie Park

Brain, Behavior, and Immunity

Available online 1 November 2019

<https://doi.org/10.1016/j.bbi.2019.10.021>

Highlights

- Symptom severity in PTSD affects inflammation, autonomic function and regulation.
- Severe PTSD is linked to greater impairment in cardiovagal baroreflex sensitivity.
- Severe PTSD is associated with increased baseline levels of inflammatory biomarkers.
- Severe PTSD have exaggerated withdrawal of parasympathetic activation during stress.

Abstract

Post-traumatic stress disorder (PTSD) is associated with a greater risk of incident hypertension and cardiovascular disease. Inflammation, impaired baroreflex sensitivity (BRS) decreased parasympathetic nervous system (PNS) and overactive sympathetic nervous system (SNS) activity are suggested as contributing mechanisms. Increasing severity of PTSD symptoms has been linked to greater cardiovascular risk; however, the impact of PTSD symptom severity on inflammation and autonomic control of blood pressure has not yet been explored. We hypothesized that increasing PTSD symptom severity is linked to higher inflammation, greater SNS activity, lower PNS reactivity and impaired BRS. Seventy Veterans participated in this study: 28 with severe PTSD ((Clinical Administered PTSD Scale (CAPS) > 60; S-PTSD), 16 with moderate PTSD (CAPS $\geq 45 \leq 60$; M-PTSD) and 26 Controls (CAPS < 45; NO-PTSD). We recorded continuous blood pressure (BP), heart rate (HR) via EKG, heart rate variability (HRV) markers reflecting PNS and muscle sympathetic nerve activity (MSNA) at rest, during arterial baroreflex sensitivity (BRS) testing via the modified Oxford technique, and during 3 min of mental stress via mental arithmetic. Blood samples were analyzed for 12 biomarkers of systemic and vascular inflammation. While BP was comparable between severity groups, HR tended to be higher ($p = 0.055$) in S-PTSD (76 ± 2 beats/min) than in Controls (67 ± 2 beats/min) but comparable to M-PTSD (70 ± 3 beats/min). There were no differences in resting HRV and MSNA between groups; however, cardiovagal BRS was blunted ($p = 0.021$) in S-PTSD (10 ± 1 ms/mmHg) compared to controls (16 ± 3 ms/mmHg) but comparable to M-PTSD (12 ± 2 ms/mmHg). Veterans in the S-PTSD group had a higher ($p < 0.001$) combined inflammatory score compared to both M-PTSD and NO-PTSD. Likewise, while mental stress induced similar SNS and

cardiovascular responses between the groups, there was a greater reduction in HRV in S-PTSD compared to both M-PTSD and NO-PTSD. In summary, individuals with severe PTSD symptoms have higher inflammation, greater impairment of BRS, a trend towards higher resting HR and exaggerated PNS withdrawal at the onset of mental stress that may contribute to cardiovascular risk in severe PTSD.

<https://link.springer.com/article/10.1007/s11606-019-05307-w>

Mortality Among Veterans with Major Mental Illnesses Seen in Primary Care: Results of a National Study of Veteran Deaths.

Trivedi, R.B., Post, E.P., Piegari, R. et al.

Journal of General Internal Medicine

First Online: 30 October 2019

<https://doi.org/10.1007/s11606-019-05307-w>

Background

Premature mortality observed among the mentally ill is largely attributable to chronic illnesses. Veterans seen within Veterans Affairs (VA) have a higher prevalence of mental illness than the general population but there is limited investigation into the common causes of death of Veterans with mental illnesses.

Objective

To characterize the life expectancy of mentally ill Veterans seen in VA primary care, and to determine the most death rates of combinations of mental illnesses.

Design

Retrospective cohort study of decedents.

Setting/Participants

Veterans seen in VA primary care clinics between 2000 and 2011 were included. Records from the VA Corporate Data Warehouse (CDW) were merged with death information from the National Death Index.

Main Measures

Mental illnesses were determined using ICD9 codes. Direct standardization methods were used to calculate age-adjusted gender and cause-specific death rates per 1000

deaths for patients with and without depression, anxiety, post-traumatic stress disorder (PTSD), substance use disorder (SUD), serious mental illness (SMI), and combinations of those diagnoses.

Key Results

Of the 1,763,982 death records for Veterans with 1 + primary care visit, 556,489 had at least one mental illness. Heart disease and cancer were the two leading causes of death among Veterans with or without a mental illness, accounting for approximately 1 in 4 deaths. Those with SUD (n = 204,950) had the lowest mean age at time of death (64 ± 12 years). Among men, the death rates were as follows: SUD (55.9/1000); anxiety (49.1/1000); depression (45.1/1000); SMI (40.3/1000); and PTSD (26.2/1000). Among women, death rates were as follows: SUD (55.8/1000); anxiety (36.7/1000); depression (45.1/1000); SMI (32.6/1000); and PTSD (23.1/1000 deaths). Compared to men (10.8/1000) and women (8.7/1000) without a mental illness, these rates were multiple-fold higher in men and in women with a mental illness. A greater number of mental illness diagnoses was associated with higher death rates among men and women ($p < 0.0001$).

Conclusions

Veterans with mental illnesses, particularly those with SUD, and those with multiple diagnoses, had shorter life expectancy than those without a mental illness. Future studies should examine both patient and systemic sources of disparities in providing chronic illness care to Veterans with a mental illness.

<https://reflections-narratives-of-professional-helping.org/index.php/Reflections/article/view/1754>

Understanding Cultural Humility Through the Lens of a Military Culture.

Margaret Lane

Reflections: Narratives of Professional Helping
Vol 25 No 1 (2019): Published October 2019

The author's background for over the past 20 years has been working with the military veteran population and active duty military members in the Veterans Administration (VA). Her practice has comprised many components of VA health care, including medical and behavioral health. Regardless of which facet of care her practice has led

her to, one element has always been the driving focus for her to convey to those who do not primarily work with veterans—the understanding and recognition of veterans and military members as a separate cultural identity. This narrative seeks to create a space for exploration and understanding of the differences between civilian cultures and military cultures by utilizing a cultural humility framework. The author’s overall aim is to inform and recognize military cultural differences through the lens of a shared, collectivistic, and militaristic cultural enmeshment, thus increasing present cultural competency and linguistic knowledge beyond categorical denotations and moving toward continued cultural learning and true expression that lead to deeper implications. Providers’ perceptions of their own cultural humility play a vital role in understanding and treating military members. It is in the understanding of military structure, language, commitment to their unit, service to their country, and how military members embrace honor and service, that true cultural humility begins to form (Tschaeppe, 2018). The author believes it is vital that the military populations are recognized not only for their specialized services in protecting their country, but also for their unique and distinct culture that comprises the United States military community.

<https://www.tandfonline.com/doi/abs/10.1080/08995605.2019.1657754>

Meta-analysis of risk factors for substance abuse in the US military.

Lisa L. Brady, Marcus Credé, P.D. Harms, Daniel G. Bachrach & Paul B. Lester

Military Psychology

Published online: 06 Nov 2019

DOI: 10.1080/08995605.2019.1657754

This article describes the results from a meta-analytic review of 55 studies and 78 independent samples containing information about the demographic, contextual, and psychological factors associated with alcohol and drug abuse among United States military personnel. In terms of demographics, results from this analysis reveal higher levels of substance abuse among personnel who are male, younger, have less education, are unmarried, and who are of a lower military rank (E1-E3). In terms of the military context, rates of substance abuse are greater for personnel with combat exposure and a recent or lengthy deployment. Finally, rates of substance abuse are higher among personnel reporting specific psychological symptoms, including negative emotionality, impulsivity, and symptoms associated with depression, posttraumatic stress disorder (PTSD), and traumatic brain injuries (TBI). This study suggests that a

number of sociodemographic, psychological, and contextual factors are related to the odds that a military service member engages in high levels of substance abuse. The results provide a strong foundation for the development of interventions aimed toward vulnerable populations in the US military.

<https://onlinelibrary.wiley.com/doi/full/10.1002/jts.22465>

Body- and Movement-Oriented Interventions for Posttraumatic Stress Disorder: A Systematic Review and Meta-Analysis.

Van de Kamp, M. M., Scheffers, M. , Hatzmann, J., Emck, C., Cuijpers, P. and Beek, P. J.

Journal of Traumatic Stress

First published: 28 October 2019

<https://doi.org/10.1002/jts.22465>

To assess the efficacy of body- and movement-oriented interventions (BMOIs) in traumatized adults with posttraumatic stress disorder (PTSD), we conducted a systematic review and meta-analysis of pertinent literature. Four bibliographical databases (PsycINFO, Ovid MEDLINE(R), EMBASE, and the Cochrane Central Register of Controlled Trials) were searched using keywords and text words for trials on BMOIs addressing PTSD. The search included articles published between October 2005 and August 2017. Studies were included if participants were adults suffering from PTSD, if BMOIs were the therapeutic strategy under investigation, and if a psychometrically evaluated standardized outcome measure for PTSD was used. No limitations for control conditions were applied. Hedges' g was computed as the effect size (ES) for the treatment versus control condition. The meta-analysis included 15 studies, which resulted in a mean ES of $g = 0.85$, 95% CI [0.31, 1.39], with very high heterogeneity, $I^2 = 91\%$. After removing one study as outlier, a mean effect size of $g = 0.56$, 95% CI [0.29, 0.82] (i.e., medium effect), still with considerable heterogeneity, $I^2 = 57\%$, was found. BMOIs seem to be effective in reducing symptoms of PTSD, but more research is needed to identify working mechanisms and to determine which types of intervention are most effective for various subgroups of patients.

<https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2747848>

Association Between Clinically Meaningful Posttraumatic Stress Disorder Improvement and Risk of Type 2 Diabetes.

Scherrer JF, Salas J, Norman SB, et al.

JAMA Psychiatry

2019; 76(11): 1159–1166

<https://doi.org/10.1001/jamapsychiatry.2019.2096>

Key Points

Question

Is clinically meaningful posttraumatic stress disorder symptom decrease (≥ 20 -point decrease on the Posttraumatic Stress Disorder Checklist score) associated with a lower risk of incident type 2 diabetes compared with less than a clinically meaningful or no improvement?

Findings

In this cohort study of medical records from 1598 patients, clinically meaningful posttraumatic stress disorder improvement compared with less than clinically meaningful or no improvement was associated with a 49% lower risk of incident type 2 diabetes.

Meaning

Long-term chronic health conditions associated with posttraumatic stress disorder may be less likely to occur among patients who experience clinically meaningful symptom reduction through treatment or spontaneous improvement.

Abstract

Importance

Posttraumatic stress disorder (PTSD) is associated with increased risk of type 2 diabetes (T2D). Improvement in PTSD has been associated with improved self-reported physical health and hypertension; however, there is no literature, to our knowledge, on whether PTSD improvement is associated with T2D risk.

Objective

To examine whether clinically meaningful PTSD symptom reduction is associated with lower risk of T2D.

Design, Setting, and Participants

This retrospective cohort study examined Veterans Health Affairs medical record data from 5916 patients who received PTSD specialty care between fiscal years 2008 and 2012 and were followed up through fiscal year 2015. Eligible patients had 1 or more PTSD Checklist (PCL) scores of 50 or higher between fiscal years 2008 and 2012 and a second PCL score within the following 12 months and at least 8 weeks after the first PCL score of 50 or higher. The index date was 12 months after the first PCL score. Patients were free of T2D diagnosis or an antidiabetic medication use for 12 months before the index date and had at least 1 visit after the index date. Data analyses were completed during January 2019.

Exposures

Reduction in PCL scores during a 12-month period was used to define patients as those with a clinically meaningful improvement (≥ 20 -point PCL score decrease) and patients with less or no improvement (< 20 -point PCL score decrease).

Main Outcomes and Measures

Incident T2D diagnosed during a 2- to 6-year follow-up.

Results

Medical records from a total of 1598 patients (mean [SD] age, 42.1 [13.4] years; 1347 [84.3%] male; 1060 [66.3%] white) were studied. The age-adjusted cumulative incidence of T2D was 2.6% among patients with a clinically meaningful PCL score decrease and 5.9% among patients without a clinically meaningful PCL score decrease ($P = .003$). After control for confounding, patients with a clinically meaningful PCL score decrease were significantly less likely to develop T2DM compared with those without a clinically meaningful decrease (hazard ratio, 0.51; 95% CI, 0.26-0.98).

Conclusions and Relevance

The findings suggest that clinically meaningful reductions in PTSD symptoms are associated with a lower risk of T2D. A decrease in PCL score, whether through treatment or spontaneous improvement, may help mitigate the greater risk of T2D in patients with PTSD.

<https://ajp.psychiatryonline.org/doi/full/10.1176/appi.ajp.2019.19080888>

Reducing Suicidality Through Insomnia Treatment: Critical Next Steps in Suicide Prevention. (editorial)

Jessica L. Hamilton, Ph.D., Daniel J. Buysse, M.D.

The American Journal of Psychiatry

Published Online: 1 Nov 2019

<https://doi.org/10.1176/appi.ajp.2019.19080888>

Suicide is a major public health concern. Rates of suicide have increased in the United States, with most states experiencing a greater than 30% increase in deaths by suicide across the past 20 years (1). Despite decades of research, our efforts at suicide prevention remain limited. One reason is that most identified risk factors for suicide, such as demographic characteristics, psychiatric conditions, or prior suicidal behaviors, are unchangeable or not readily modifiable. By contrast, insomnia offers promise as a risk factor for suicide and suicidality because it is time varying, proximal, and modifiable. Growing evidence suggests that insomnia is associated with suicide and suicidality (i.e., suicidal ideation and behavior) independent of well-established risk factors for suicide, such as depression and hopelessness (2). In light of mounting evidence, sleep disturbances, especially insomnia and nightmares, are now listed as one of the top 10 warning signs by the Substance Abuse and Mental Health Services Administration.

<https://www.sciencedirect.com/science/article/abs/pii/S1389945719303569>

Is digital cognitive behavioural therapy for insomnia effective in treating sub-threshold insomnia: A pilot RCT.

Dan Denis, Thalia C. Eley, Fruhling Rijdsdijk, Helena Zavos, ... Alice M. Gregory

Sleep Medicine

Available online 5 November 2019

<https://www.sciencedirect.com/science/article/abs/pii/S1389945719303569>

Highlights

- CBT-I is the first-choice treatment for insomnia, however it remains unclear if CBT-I could benefit individuals with sub-threshold insomnia.
- Here, we show that CBT-I leads to significant improvement in symptoms even in those with sub-threshold insomnia, compared to a control group.
- CBT-I also improved a number of non-insomnia complaints, specifically levels of anxiety, paranoia, and perceived stress.

- CBT-I is effective in sub-threshold participants, suggesting it to be a useful tool for tackling the symptoms of insomnia before they reach a clinical level.

Abstract

Objective/Background

CBT for insomnia (CBT-I) is useful for many. It is currently unknown if those with sub-threshold insomnia also benefit. Here we assessed whether CBT-I is both feasible and acceptable in participants with sub-threshold insomnia. The primary aims were to evaluate participation rates and treatment acceptability, and to establish an effect size for symptom improvement.

Patients/Methods

A total of 199 female participants (Mean 20 ± 5 years) took part. Following baseline assessments, participants were randomly allocated to either a 6-week digital CBT-I intervention or a 6-week session control group receiving puzzles. Additional assessments were performed 3-weeks, 6-weeks, and 6-months later.

Results

Participation in each survey wave did not differ between the groups ($p > .140$), though adherence to weekly tasks was lower in the CBT-I group, $p = .02$. Treatment acceptability was high ($M (SD) = 33.61 (4.82)$, range 6 – 42). The CBT-I group showed greater improvement in insomnia symptoms at the end of the intervention compared to the control group ($p = .013$, $d = 0.42$), with significant variation in outcome ($M = 4.69$, $SD = 5.41$). Sub-threshold participants showed a similar pattern of results, whilst those meeting insomnia criteria showed a smaller between-group difference. CBT-I led to improvements in anxiety, paranoia and perceived stress between baseline and end of intervention. Changes in insomnia symptoms were mediated by cognitions about sleep and somatic pre-sleep arousal.

Conclusions

CBT-I provides a benefit even in sub-threshold insomnia. CBT-I may be useful as an early preventative intervention to tackle sleep problems before they manifest as chronic insomnia.

<https://journals.sagepub.com/doi/abs/10.1177/0269881119882806>

Does cannabis use modify the effect of post-traumatic stress disorder on severe depression and suicidal ideation? Evidence from a population-based cross-sectional study of Canadians.

Lake, S., Kerr, T., Buxton, J., Walsh, Z., Marshall, B., Wood, E., & Milloy, M.-J.

Journal of Psychopharmacology
First Published November 5, 2019
<https://doi.org/10.1177/0269881119882806>

Background:

Post-traumatic stress disorder sharply increases the risk of depression and suicide. Individuals living with post-traumatic stress disorder frequently use cannabis to treat associated symptoms. We sought to investigate whether cannabis use modifies the association between post-traumatic stress disorder and experiencing a major depressive episode or suicidal ideation.

Methods:

We used data from the 2012 Canadian Community Health Survey-Mental Health, a nationally representative cross-sectional survey of non-institutionalized Canadians aged ≥ 15 years. The relationship between post-traumatic stress disorder and each outcome was modelled using logistic regression with an interaction term for cannabis and post-traumatic stress disorder, controlling for demographic characteristics, mental health, and substance use comorbidities. The ratio of odds ratios and relative excess risk due to interaction was calculated to measure interaction on the multiplicative and additive scales, respectively.

Results:

Among 24,089 eligible respondents, 420 (1.7%) reported a current clinical diagnosis of post-traumatic stress disorder. In total, 106 (28.2%) people with post-traumatic stress disorder reported past-year cannabis use, compared to 11.2% of those without post-traumatic stress disorder ($p < 0.001$). In multivariable analyses, post-traumatic stress disorder was significantly associated with recent major depressive episode (adjusted odds ratio = 7.18, 95% confidence interval: 4.32–11.91) and suicidal ideation (adjusted odds ratio = 4.76, 95% confidence interval: 2.39–9.47) among cannabis non-users. post-traumatic stress disorder was not associated with either outcome among cannabis-using respondents (both $p > 0.05$).

Conclusions:

This study provides preliminary epidemiological evidence that cannabis use may contribute to reducing the association between post-traumatic stress disorder and severe depressive and suicidal states. There is an emerging need for high-quality experimental investigation of the efficacy of cannabis/cannabinoids for the treatment of post-traumatic stress disorder.

<https://link.springer.com/article/10.1007/s00127-019-01785-9>

Social connectedness, depression symptoms, and health service utilization: a longitudinal study of Veterans Health Administration patients.

Jason I. Chen, Elizabeth R. Hooker, Meike Niederhausen, Heather E. Marsh, Somnath Saha, Steven K. Dobscha, Alan R. Teo

Social Psychiatry and Psychiatric Epidemiology

First Online: 06 November 2019

<https://doi.org/10.1007/s00127-019-01785-9>

Purpose

Our study explored whether aspects of veterans' social connectedness (social support, interpersonal conflict, loneliness, social norms, number of confidants) are associated with change in their depression symptoms and health services utilization over 1 year.

Methods

We conducted a prospective, longitudinal study of 262 military veterans who obtained primary care and other services at a Veterans Health Administration (VHA) facility and screened positive for depression. Participants completed surveys at baseline and 12-month follow-up. We measured social connectedness variables using the NIH Toolbox Adult Social Relationship Scales. We used the Patient Health Questionnaire to assess depression symptoms and suicidal ideation and administrative medical record data for health services utilization. We calculated change scores to model outcomes over time using multivariable regressions.

Results

We found that higher levels of baseline loneliness were associated with decreased depression severity over 1 year ($B = -1.55$, 95% CI $[-2.53, -.56]$, $p < .01$). We found a similar association for suicidal ideation. In contrast, higher baseline number of

confidants was associated with increased depression ($B = .55$, 95% CI [.18, .92], $p < .01$). Higher levels of emotional support were associated with decreased mental health visits ($B = -3.88$, 95% CI [-6.80, -.96], $p < .01$). No significant associations were found between social connectedness variables and primary care visits.

Conclusions

Emotional support may play an important role in reducing mental health treatment utilization among VHA-using veterans. Additional investigation as to how and why loneliness and number of confidants might be paradoxically associated with depression symptoms remains necessary.

<https://aps.onlinelibrary.wiley.com/doi/abs/10.1111/cp.12196>

Evidence-based practice within supervision during psychology practitioner training: A systematic review.

Jessica Barrett, Craig J. Gonsalvez, Alice Shires

Clinical Psychologist

First published: 18 August 2019

<https://doi.org/10.1111/cp.12196>

Background

Supervision has long been recognised as a highly influential aspect of training within psychology. The scientist–practitioner model underpins postgraduate psychology training programs. During such programs, clinical supervision plays an important role in the development and acquisition of evidence-based practice and scientist–practitioner competence.

Objective

The primary objective of this study was to provide a comprehensive, current, and systematic review of the empirical research on supervisory interventions or practice that monitored and/or shaped the development of scientist–practitioner competence among psychology trainees. The secondary objective was to conduct a critical appraisal and assess the methodological rigour of included studies.

Methods

Four major electronic databases were systematically searched against a priori inclusion

criteria. Eligible quantitative studies investigated were located and assessed to identify evidence-based practice and scientist–practitioner factors within supervision in the psychology training settings.

Results

A large pool of studies was retrieved but only four studies (N = 724 participants) met inclusion criteria indicating a major gap in the area. A narrative synthesis was conducted. Included studies were of good methodological quality, had small to medium sample sizes, and produced significant and valid results. Included studies used competency evaluation rating forms and compared supervision interventions.

Conclusions

Despite the large body of literature on supervision, this review highlights a lack of empirical investigations into evidence-based practice and scientist–practitioner competence within supervision during psychology training. Future research directions are provided, and recommendations and implications for training and supervision are discussed.

<https://www.sciencedirect.com/science/article/abs/pii/S1087079219301959>

A systematic review of the accuracy of sleep wearable devices for estimating sleep onset.

Hannah Scott, Leon Lack, Nicole Lovato

Sleep Medicine Reviews

Available online 6 November 2019

<https://doi.org/10.1016/j.smr.2019.101227>

The accurate estimation of sleep onset is required for many purposes, including the administration of a behavioural treatment for insomnia called Intensive Sleep Retraining, facilitating power naps, and conducting objective daytime sleepiness tests. Specialised equipment and trained individuals are presently required to administer these applications in the laboratory: a costly and impractical procedure which limits their utility in practice. A wearable device could be used to administer these applications outside the laboratory, increasing accessibility. This systematic review aimed to identify practical wearable devices that accurately estimate sleep onset. The search strategy identified seventy-one articles which compared estimations of sleep onset latency from

wearable devices against polysomnography. Actigraphy devices produced average estimations of sleep onset latency that were often not significantly different from polysomnography, but there was large inter-individual variability depending on participant characteristics. As expected, electroencephalography-based devices produced more accurate and less variable estimates. Devices that measured behavioural aspects of sleep onset consistently overestimated PSG-determined sleep onset latency, but to a comparatively low degree. This sleep measurement method could be deployed in a simple wearable device to accurately estimate sleep onset and administer Intensive Sleep Retraining, power naps, and objective daytime sleepiness tests outside the laboratory setting.

<https://link.springer.com/article/10.1186/s12888-019-2328-8>

The longitudinal association between lifetime mental disorders and first onset or recurrent suicide ideation.

Derek de Beurs, Margreet ten Have, Pim Cuijpers

BMC Psychiatry

First Online: 06 November 2019

<https://doi.org/10.1186/s12888-019-2328-8>

Background

Although the cross-sectional association between mental disorders and suicide ideation is well studied, less is known about the prospective association. In this paper, we estimated among those without 12-month suicide ideation at baseline, the association between a wide variety of common mental disorders at baseline and suicide ideation within the 6-year follow-up period, after controlling for history of other mental disorders and demographic variables.

Methods

Data were used from the Netherlands Mental Health Survey and Incidence Study-2 (NEMESIS-2), a prospective representative adult cohort study with baseline (n = 6646) with a 6-year follow-up period. Lifetime mental disorders were assessed at baseline with the Composite International Diagnostic Interview 3.0. Within the longitudinal design, participants with first time or recurrent suicide ideation were defined follows: having no suicide ideation in the 12 months before the baseline assessment, and reporting to have had seriously thought about suicide between baseline and the 6-year follow-up period.

Multiple logistical regression was used to estimate the longitudinal association between suicide ideation and a specific mental disorder while controlling for comorbidity and baseline variables. To account for the prevalence of a disorder in the population, for each disorder, the population attributable risk proportion (PARP) was calculated.

Results

2.9% (n = 132) of the participants that did not report suicide ideation in the past 12 months at baseline reported suicide ideation at follow-up. Of these 132 cases, 81 (61%) experienced suicide ideation for the first time in their lives and could be viewed as first onset cases. 51 (39%) reported recurrent suicide ideation. After controlling for comorbidity, the only two disorders that were significantly related to suicide ideation at follow-up were lifetime major depressive disorder (MDD) and generalized anxiety disorder (GAD). PARP for MDD was 47.8 and 16.6% for GAD.

Conclusions

After controlling for all other mental disorders, a lifetime history of MDD and GAD were related to suicide ideation at follow-up. For clinical practice, this indicates that patients with a history of MDD or GAD stay vulnerable for suicide ideation, even though they did not report suicide ideation in the past year.

<https://focus.psychiatryonline.org/doi/abs/10.1176/appi.focus.20190023>

Liability and Patient Suicide.

Debra A. Pinals, M.D.

Focus

Published Online:7 Nov 2019

<https://doi.org/10.1176/appi.focus.20190023>

Suicide is one of the leading causes of liability against a psychiatrist treating adult patients. Reducing the risk of liability entails understanding the phenomenology of suicide, approaching suicide risk assessment from a clinical perspective, conceptualizing how malpractice cases unfold, examining the issues of foreseeability and proper risk assessment, and developing a risk management approach to mitigate against the potential for a bad outcome. The use of various suicide screening risk assessments in certain clinical contexts is a potentially useful first step in identifying the need for further risk assessment. In conducting a more detailed review of a patient's

risk, nonsuicidal self-injury is typically distinguished from suicidal intent and action, although morbidity and mortality can also be associated with any deliberate self-injury. Understanding the concepts of means reduction and risk management planning are essential elements to assist in helping reduce risk. Special attention to risk reduction related to firearms has received increased attention in recent years. Proper assessment, and documentation thereof in clinical records can assist in reducing liability. This article reviews these basic elements for the general practitioner of adult psychiatry related to suicide risk, assessment, and liability surrounding patient suicide.

<https://www.sciencedirect.com/science/article/abs/pii/S0165178119311163>

The interaction of dissociation, pain tolerance, and suicidal ideation in predicting suicide attempts.

Ana Rabasco, Margaret S. Andover

Psychiatry Research

Available online 8 November 2019

<https://doi.org/10.1016/j.psychres.2019.112661>

Highlights

- Dissociation in relation to suicide attempts is understudied.
- Dissociation statistically predicted suicide attempts.
- The suicide ideation and dissociation interaction significantly predicted attempts.
- The interaction of ideation, dissociation, and pain tolerance predicted attempts.
- Higher ideation and dissociation predicted attempts, regardless of pain tolerance.

Abstract

Pain tolerance and dissociation have individually been shown to be risk factors for suicidal behaviors. The aim of the current study was to investigate how dissociation and physiological pain tolerance influence the relation between suicidal thoughts and behaviors. The sample consisted of 70 undergraduate college students who completed self-report measures of suicidality and dissociation and an electrical stimulation task to measure physiological pain tolerance. Results showed that dissociation and suicidal ideation, but not pain tolerance, were independently associated with increased suicide attempts. A three-way interaction of suicidal ideation, physiological pain tolerance, and dissociation statistically predicted number of suicide attempts, with an increased number of suicide attempts associated with high suicidal ideation and dissociation,

regardless of pain tolerance. These results suggest that dissociation plays a significant role in predicting suicide attempts, perhaps by engendering a state of disconnect from one's body.

<https://academic.oup.com/jmt/advance-article/doi/10.1093/jmt/thz010/5614310>

Music Therapy With Military Populations: A Scoping Review.

Lori F Gooding, PhD, MT-BC, Diane G Langston, MM, MT-BC

Journal of Music Therapy

Published: 07 November 2019

<https://doi.org/10.1093/jmt/thz010>

Music therapy treatment is increasingly being used to promote health, enhance quality of life, and improve functioning in military personnel, but evidence on the use of music interventions with military service members is still emerging. The purpose of this scoping review was to synthesize the available literature regarding music therapy treatment with military personnel by identifying the types of information available, key characteristics, and gaps in the knowledge base. The review was completed using the methodological framework proposed by Arksey and O'Malley. A total of 27 publications met the criteria for review. The results included anecdotal reports, white papers/ briefs, case studies, historical reviews, clinical program descriptions, and research studies. Both active duty and veteran service members were represented in the literature, and post-traumatic stress disorder and traumatic brain injury were the most commonly listed conditions among those served. Music therapy services were offered in both group and individual formats, and drumming was the most common music intervention cited. Most publications accurately represented music therapy, and the historical reviews highlighted the connection between the development of the field of music therapy and the use of music with military personnel. Several gaps were identified, including a lack of specificity in reporting, low levels of evidence, and limited inclusion of women service members.

<https://academic.oup.com/painmedicine/advance-article-abstract/doi/10.1093/pm/pnz269/5614403>

Mobile Neurofeedback for Pain Management in Veterans with TBI and PTSD.

Eric B Elbogen, Amber Alsobrooks, Sara Battles, Kiera Molloy, Paul A Dennis, Jean C Beckham, Samuel A McLean, Julian R Keith, Carmen Russoniello

Pain Medicine

Published: 07 November 2019

<https://doi.org/10.1093/pm/pnz269>

Objective

Chronic pain is common in military veterans with traumatic brain injury (TBI) and post-traumatic stress disorder (PTSD). Neurofeedback, or electroencephalograph (EEG) biofeedback, has been associated with lower pain but requires frequent travel to a clinic. The current study examined feasibility and explored effectiveness of neurofeedback delivered with a portable EEG headset linked to an application on a mobile device.

Design

Open-label, single-arm clinical trial.

Setting

Home, outside of clinic.

Subjects

N = 41 veterans with chronic pain, TBI, and PTSD.

Method

Veterans were instructed to perform “mobile neurofeedback” on their own for three months. Clinical research staff conducted two home visits and two phone calls to provide technical assistance and troubleshoot difficulties.

Results

N = 36 veterans returned for follow-up at three months (88% retention). During this time, subjects completed a mean of 33.09 neurofeedback sessions (10 minutes each). Analyses revealed that veterans reported lower pain intensity, pain interference, depression, PTSD symptoms, anger, sleep disturbance, and suicidal ideation after the three-month intervention compared with baseline. Comparing pain ratings before and after individual neurofeedback sessions, veterans reported reduced pain intensity 67%

of the time immediately following mobile neurofeedback. There were no serious adverse events reported.

Conclusions

This preliminary study found that veterans with chronic pain, TBI, and PTSD were able to use neurofeedback with mobile devices independently after modest training and support. While a double-blind randomized controlled trial is needed for confirmation, the results show promise of a portable, technology-based neuromodulatory approach for pain management with minimal side effects.

<https://dl.acm.org/citation.cfm?id=3359217>

Provider Perspectives on Integrating Sensor-Captured Patient-Generated Data in Mental Health Care.

Proceedings of the ACM on Human-Computer Interaction archive
Volume 3 Issue CSCW, November 2019
Article No. 115

The increasing ubiquity of health sensing technology holds promise to enable patients and health care providers to make more informed decisions based on continuously-captured data. The use of sensor-captured patient-generated data (sPGD) has been gaining greater prominence in the assessment of physical health, but we have little understanding of the role that sPGD can play in mental health. To better understand the use of sPGD in mental health, we interviewed care providers in an intensive treatment program (ITP) for veterans with post-traumatic stress disorder. In this program, patients were given Fitbits for their own voluntary use. Providers identified a number of potential benefits from patients' Fitbit use, such as patient empowerment and opportunities to reinforce therapeutic progress through collaborative data review and interpretation. However, despite the promise of sensor data as offering an "objective" view into patients' health behavior and symptoms, the relationships between sPGD and therapeutic progress are often ambiguous. Given substantial subjectivity involved in interpreting data from commercial wearables in the context of mental health treatment, providers emphasized potential risks to their patients and were uncertain how to adjust their practice to effectively guide collaborative use of the FitBit and its sPGD. We discuss the implications of these findings for designing systems to leverage sPGD in mental health care.

<https://www.sciencedirect.com/science/article/abs/pii/S0165178119315860>

**Posttraumatic stress, alcohol use, and alcohol use motives among firefighters:
The role of distress tolerance.**

Maya Zegel, Jana K. Tran, Anka A. Vujanovic

Psychiatry Research

Available online 7 November 2019

<https://doi.org/10.1016/j.psychres.2019.112633>

Highlights

- PTSD symptom severity was positively associated with alcohol use severity.
- PTSD symptom severity was positively associated with coping and conformity motives.
- Distress tolerance was associated with alcohol use, conformity, and coping motives.
- Interactive effect of PTSD and distress tolerance with regard to coping motives.

Abstract

Firefighters represent a unique, vulnerable population at high risk for alcohol use disorder (AUD) and posttraumatic stress disorder (PTSD) symptomatology due to the high rates of occupational exposure to traumatic events. To inform specialized alcohol use interventions for firefighters, it is important to understand relevant malleable cognitive-affective factors related to PTSD and AUD symptoms. Distress tolerance (DT), defined as the perceived ability to withstand negative emotional states, is one promising factor relevant to this domain. The current study examined the moderating role of DT in the association of PTSD symptom severity with alcohol use severity and alcohol use motives. Participants included 652 trauma-exposed firefighters (93.3% male; Mage = 38.7 years, SD = 8.6) who endorsed lifetime (ever) alcohol use. Results indicated that there was a significant interactive effect of PTSD symptom severity and DT on coping-oriented alcohol use motives but not other alcohol-related outcomes. These findings were evident after adjusting for alcohol consumption, romantic relationship status, number of years in the fire service, occupational stress, and trauma load. This is the first study to concurrently examine these variables among firefighters and this line of inquiry has great potential to inform intervention efforts for this vulnerable, understudied population.

Links of Interest

(Lots of good reading this week due to Veteran's Day)

I Watched Friends Die in Afghanistan. The Guilt Has Nearly Killed Me.

<https://www.nytimes.com/2019/11/11/magazine/survivor-guilt-veteran.html>

Thank you, veterans? Yes. But let's thank their families, too.

https://www.washingtonpost.com/local/thank-you-veterans-yes-but-lets-thank-their-families-too/2019/11/11/091263da-048e-11ea-ac12-3325d49eacaa_story.html

Veterans: What to Expect When You Return from Deployment

<https://www.aafp.org/afp/2019/1101/p544-s1.html>

Interview: Jan C. Scruggs, president of Vietnam Veterans Memorial Fund

<https://www.militarytimes.com/military-honor/salute-veterans/2019/11/07/interview-jan-c-scruggs-president-of-vietnam-veterans-memorial-fund/>

Hire Our Heroes: Helping veterans transition from military service

<https://www.militarytimes.com/military-honor/salute-veterans/2019/11/07/hire-our-heroes-helping-veterans-transition-from-military-service/>

Companies that Recruit Veterans Often Fail to Hire Them, Data Shows

<https://www.military.com/daily-news/2019/11/06/companies-recruit-veterans-often-fail-hire-them-data-shows.html>

Veterans can now access their VA medical records through their iPhones

<https://www.militarytimes.com/pay-benefits/2019/11/07/veterans-can-now-access-their-va-medical-records-through-their-iphones/>

How Veterans Affairs denies care to many of the people it's supposed to serve

https://www.washingtonpost.com/outlook/how-veterans-affairs-denies-care-to-many-of-the-people-its-supposed-to-serve/2019/11/08/2c105b48-0183-11ea-9518-1e76abc088b6_story.html

New Army-funded research shows promise for PTSD treatment

<https://www.cbsnews.com/news/sgb-for-ptsd-new-army-funded-research-shows-promise-for-ptsd-treatment-featured-on-60-minutes/>

New research shows nerve injections are effective for treating PTSD symptoms
<https://www.militarytimes.com/pay-benefits/2019/11/06/new-research-shows-nerve-injections-are-effective-for-treating-ptsd-symptoms/>

New Study Supports Using Shot to Treat PTSD
<https://news.usni.org/2019/11/06/new-study-supports-using-shot-to-treat-ptsd>

A Daughter Explores Her Father's PTSD, From Vietnam Until Today
<https://www.npr.org/sections/parallels/2016/11/11/500674719/a-daughter-explores-her-fathers-ptsd-from-vietnam-until-today>

Lawsuit against Navy improperly discharging vets with PTSD to move forward, judge rules
<https://www.stripes.com/news/us/lawsuit-against-navy-improperly-discharging-vets-with-ptsd-to-move-forward-judge-rules-1.606606>

U.S. Postal Service Announces Healing PTSD Semipostal Fundraising Stamp
<https://www.postaltimes.com/postalnews/u-s-postal-service-announces-healing-ptsd-semipostal-fundraising-stamp/>

More Can Be Done to Save Veterans from Suicide
<https://www.rand.org/blog/rand-review/2019/11/more-can-be-done-to-save-veterans-from-suicide.html>

Soldier deaths in South Korea put spotlight on US military suicide crisis
<http://www.stripes.com/news/pacific/soldier-deaths-in-south-korea-put-spotlight-on-us-military-suicide-crisis-1.606963>

Groups Work To Raise Awareness, Lower Veteran Suicide Rate
<https://www.sideeffectspublicmedia.org/post/groups-work-raise-awareness-lower-veteran-suicide-rate>

Veterans in Connecticut prison getting help from horses
<https://www.militarytimes.com/military-honor/salute-veterans/2019/11/07/veterans-in-connecticut-prison-getting-help-from-horses/>

Veterans more likely to be targeted by sophisticated financial scams
<https://www.militarytimes.com/veterans/2019/11/06/veterans-more-likely-to-be-targeted-by-sophisticated-financial-scams/>

VA sexual assault cases raise concerns among a pair of GOP lawmakers

<https://www.militarytimes.com/news/pentagon-congress/2019/11/06/va-sexual-assault-cases-raise-concerns-among-a-pair-of-gop-lawmakers/>

Female veterans, World War II veterans overrepresented in news photos

<https://journalistsresource.org/studies/government/security-military/news-photos-veterans-research/>

A Former Soldier Who Found Solace Rehabbing Raptors, Now Helps Other Struggling Veterans

<https://www.audubon.org/magazine/fall-2017/a-former-soldier-who-found-solace-rehabbing-raptors>

Veteran-owned and focused market research firm seeks online community of volunteers

<https://www.militarytimes.com/military-honor/salute-veterans/2019/11/11/veteran-owned-and-focused-market-research-firm-seeks-online-community-of-volunteers/>

Trend: American sleep has gotten worse

<https://www.futurity.org/sleep-trend-united-states-2209312-2/>

Submarine Community Can't Meet Demand From Female Sailors

<https://news.usni.org/2019/11/11/available-submarine-billets-outpaced-by-demand-from-female-sailors>

The Marines Want an Academic Study on the Cost, Impacts of Co-Ed Boot Camp

<https://www.military.com/daily-news/2019/11/12/marines-want-academic-study-cost-impacts-co-ed-boot-camp.html>

Number of homeless veterans declines across United States

<https://www.militarytimes.com/veterans/2019/11/13/number-of-homeless-veterans-declines-across-united-states/>

New study shows veteran benefit discrepancies between states

<https://www.stripes.com/news/new-study-shows-veteran-benefit-discrepancies-between-states-1.606895>

How the US military embraced America's religious diversity

<https://www.militarytimes.com/news/your-navy/2019/11/12/how-the-us-military-embraced-americas-religious-diversity/>

Resource of the Week: [Improving Behavioral Health Care Access and Treatment Options for Veterans with Co-Occurring Behavioral Health Problems](#)

New working paper from the RAND Corporation:

Veterans are at greater risk of behavioral health problems than the civilian population, with posttraumatic stress disorder (PTSD), depression, and substance use disorders (SUDs) among the most common. Co-occurrence of SUDs with other behavioral health disorders is also high among veterans.

Veterans continue to face barriers to accessing high-quality behavioral health care. In addition to logistical barriers and stigma, the co-occurrence of disorders can prevent veterans from getting the care they need. Specifically, traditional treatment models for those with co-occurring behavioral health problems have required patients to seek treatment for substance use before they qualify for targeted, empirically based treatments for PTSD and depression, because heavy substance use can hinder the progress and completion of such treatments. However, veterans may be using substances to manage symptoms of PTSD and depression.

Treating substance use problems concurrently with PTSD or depression as part of an integrated approach to care is one promising route to ensuring that veterans receive the care they need without delay. This brief working paper reviews the research on co-occurring behavioral health problems and treatments among veterans and outlines several recommendations for improving veterans' access and expanding their treatment options.

Improving Behavioral Health Care Access and Treatment Options for Veterans with Co-Occurring Behavioral Health Problems

Sierra Smucker, Eric R. Pedersen, and Terri Tanielian

RAND Social and Economic Well-Being

WP-1328-MTF
October 2019
Prepared for the Robert R. McCormick Foundation

RAND working papers are intended to share researchers' latest findings and to solicit informal peer review. They have been approved for circulation by RAND Social and Economic Well-Being but have not been formally edited or peer reviewed. Unless otherwise indicated, working papers can be quoted and cited without permission of the author, provided the source is clearly referred to as a working paper. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. RAND® is a registered trademark.



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