Post-Deployment Health Assessment misses most soldiers with mental health problems

**Key Findings:** When combat-deployed soldiers completed the non-anonymous Post-Deployment Health Assessment (PDHA) followed by the same mental health questions on an anonymous survey, reports of PTSD, depression, suicidal ideation and interest in receiving care were two-fold to four-fold higher on the anonymous survey. One-fifth of soldiers screening positive for PTSD or depression indicated that they were uncomfortable reporting answers honestly on the PDHA.

**Study type:** Cross-sectional study with self-report anonymous and non-anonymous assessments

**Sample:** 1,712 deployed U.S. Army soldiers from one infantry brigade combat team

**Implications:** The findings indicate that most soldiers with significant mental health problems are not identified by the non-anonymous PDHA screening, and many soldiers still feel uncomfortable reporting mental health problems on non-anonymous assessments. These results should spur further efforts to evaluate the current post-deployment screening process, with a focus on maximizing honest reporting and reducing stigma.


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Insomnia may predict suicidal ideation among suicidal military personnel

**Key Findings:** Insomnia symptoms were found to be associated with suicidal ideation among military personnel referred for suicidality, even after accounting for other common psychological problems, such as PTSD, hopelessness, substance abuse and depression symptoms. Insomnia symptoms also predicted suicidal ideation at one-month follow-up after controlling for the same psychological problems as before.

**Study type:** Longitudinal study with self-report assessments

**Sample:** 311 young adult military personnel with severe suicidality

**Implications:** Insomnia symptoms in military personnel may be an important target for assessment and prevention of psychological problems, including suicidal ideation. Future research with a more extensive assessment of insomnia is needed to determine if this association persists among the general military population.


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Referrals and treatment for mental health symptoms uncommon after post-deployment screening

**Key Findings:** The percentage of recently combat-deployed Navy and Marine Corps service members reporting symptoms of PTSD, depression and interpersonal conflict significantly increased between the Post-Deployment Health Assessment (PDHA) and the Post-Deployment Health Re-Assessment (PDHRA), but reporting of suicidal and aggressive ideations decreased between assessments. More service members involved in direct combat (fired their weapon during combat) scored positive for mental health concerns on both assessments than those not involved in direct combat (66% vs. 48% positive for at least one mental health problem on either assessment). Despite a considerable number of service members with self-reported mental health symptoms (30% and 40% on the PDHA and PDHRA, respectively), provider referrals based on the assessments were rare (3% referral rate for each assessment), and less than one-quarter of those with self- or provider-identified mental health concerns accessed mental health care following deployment. Of those who did seek treatment, only 12% showed improvement (defined as being free of any mental health problems assessed) on the PDHRA.

**Study type:** Retrospective record review

**Sample:** 18,587 Navy and Marine Corps service members who deployed in support of OIF

**Implications:** The finding of provider referrals and mental health care utilization being much less than expected among service members reporting mental health concerns on post-deployment screening assessments is concerning, as is the finding that only 12% of those with mental health concerns who accessed mental health care improved between assessments. These findings, along with the increase in mental health symptoms found on the second post-deployment screening, suggest that not enough is being done to improve the psychological health of service members post-deployment, and efforts are needed to strengthen mental health care utilization and treatment effectiveness.


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Prolonged exposure therapy effective for combat- and terror-related PTSD

**Key Findings:** PTSD symptom severity was significantly lower at both post-treatment and follow-up at least one year later in patients with combat- or terror-related PTSD who received prolonged exposure therapy, whereas PTSD symptoms remain unchanged in patients who received treatment as usual (non-trauma-focused psychotherapy). Depression and state and trait anxiety levels also decreased significantly after prolonged exposure therapy.

**Study type:** Randomized controlled trial with self-report and clinical assessments

**Sample:** 30 patients of a trauma unit within a psychiatric outpatient clinic

**Implications:** Prolonged exposure therapy, which has been found to be beneficial for other types of PTSD, can also be effective in reducing symptom severity both short- and long-term for combat- and terror-related PTSD, and was shown to be superior to treatment as usual.

The effect of social support on mental health symptoms among Marine recruits

**Key Findings:** While social support from both military (unit cohesion) and civilian (friends and family) sources buffered the effect of stress on posttraumatic stress symptomatology (PTSS) among Marine recruits at low stress levels, only military social support acted as a buffer under high stress situations. Military social support had much more of an effect for men on lowering PTSS, whereas civilian social support was more important for women in lowering PTSS.

**Study type:** Prospective study with self-report assessments

**Sample:** 1,571 Marine recruits

**Implications:** Strong military social support during recruit training significantly reduces the effect of stress on mental health symptoms, particularly in males. Civilian social support was more important to females than military social support, and further efforts to cultivate both types of support should be made to reduce the effects of stress among military personnel.


PTSD linked to higher incidence of several medical conditions

**Key Findings:** PTSD (both full and partial) and greater lifetime exposure to trauma are associated with many stress-related and chronic medical conditions, such as diabetes, liver disease, heart disease, stomach ulcer, HIV seropositivity, gastritis and arthritis.

**Study type:** Cross-sectional study with interviewer-administered assessments

**Sample:** 34,653 participants in the Wave 2 National Epidemiologic Survey on Alcohol and Related Conditions

**Implications:** PTSD symptoms and greater trauma exposure are associated with a higher incidence of several medical conditions. Brief PTSD screenings in primary care may be helpful in identifying and referring patients for PTSD treatment.


Rumination key to building posttraumatic growth among combat amputees

**Key Findings:** Out of all variables analyzed, rumination (cognitive processing of the event), measured by the Rumination Inventory, had the strongest positive correlation with posttraumatic growth (PTG) among OEF/OIF amputees. Post-deployment social support also had a small positive relationship with PTG.

**Study type:** Cross-sectional study with self-report assessments

**Sample:** 56 OEF/OIF veterans with a major combat-related amputation

**Implications:** Rumination (cognitive processing of the event) as well as post-deployment social support may have a beneficial effect on promoting PTG among combat amputees. Providers can be instrumental in helping build PTG in patients by encouraging efforts to strengthen positive social support and rumination.


REVIEWS TO PERUSE


Capacity of acute stress disorder to predict later development of psychiatric disorders

Key Findings: Only 10% of hospitalized traumatic injury survivors were diagnosed with acute stress disorder (ASD) in the initial month after trauma. At 12 months post-trauma, 10% of survivors met criteria for PTSD and 31% had any psychiatric disorder. Of those initially diagnosed with ASD, 36% met criteria for PTSD and 65% met criteria for any psychiatric disorder at the 12-month follow-up. However, 66% of those meeting PTSD criteria and 81% of those meeting criteria for any psychiatric disorder were not initially diagnosed with ASD.

Study type: Prospective study with clinical assessments

Sample: 1,084 traumatic injury survivors, 859 of whom were re-assessed 12 months post-trauma

Implications: The novel findings demonstrate that most people with ASD will later develop a psychiatric disorder, but only approximately one-third will meet criteria for PTSD. However, the majority of people who develop any disorder a year after trauma will not display ASD initially, which limits the utility of the ASD diagnosis as a predictive tool for psychiatric pathology.


Longer dwell times predict more mental health problems post-deployment

Key Findings: PTSD and other anxiety disorders were more commonly diagnosed among military members after second or third deployments compared to first deployments, but alcohol/drug disorders and psychosocial problems were more common after the first deployment. Deployed healthcare workers were also more likely to be diagnosed with PTSD post-deployment compared to those working in combat-specific or other occupations. In addition, longer dwell times between deployments were associated with larger percentages diagnosed with several mental health conditions, including PTSD, post-deployment.

Study type: Retrospective record review

Sample: 1,344,668 active-duty service members deployed at least once to Iraq or Afghanistan since 2001

Implications: The finding of PTSD being more common after repeat deployments suggests that repeated exposure to trauma during deployments may have a cumulative negative effect on psychological health. PTSD was also more commonly diagnosed among healthcare workers, possibly due to increased access to mental healthcare and decreased stigma compared to other occupations. The unexpected finding of longer dwell times relating to increased diagnoses of several mental health conditions could have several explanations, including the transition from garrison to deployed life being more difficult and stressful for some people who have had a long dwell time, or a recovery process from various medical conditions (including psychological) requiring a long dwell time may make these service members more vulnerable to some mental health disorders after another deployment. Additional study is needed to replicate and further investigate these results.


The effect of leadership and comradeship on the mental health of UK service members

Key Findings: Reports of high unit cohesion—particularly perceived effective leadership—predicted lower levels of probable PTSD and other mental health disorders among previously combat-deployed soldiers. Reserve personnel who felt able to talk about personal problems with fellow unit members reported less alcohol misuse, but active-duty members reporting high comradeship had increased rates of alcohol misuse.

Study type: Cross-sectional study with self-report assessments

Sample: 4,901 male United Kingdom armed forces personnel previously deployed to Iraq

Implications: Unit cohesion and effective leadership may be important factors that can mitigate the development of PTSD and other psychopathology for service members who have deployed to combat arenas.

Tianeptine versus fluoxetine for veterans with PTSD

**Key Findings:** When comparing the effects of tianeptine, a serotonin reuptake enhancer, and fluoxetine, a selective serotonin reuptake inhibitor, on war veterans with PTSD being treated with pharmacotherapy and group trauma-specific psychotherapy for 5½ months, neither treatment resulted in a significant decrease in PTSD, depression or anxiety symptoms. Patients taking tianeptine showed lower levels of anxiety than patients taking fluoxetine, but neither treatment resulted in lower anxiety symptoms over time.

**Study type:** Randomized controlled trial with self-report assessments

**Sample:** 43 Croatian Homeland War veterans with PTSD

**Implications:** Neither tianeptine nor fluoxetine was effective in treating PTSD in this sample. Tianeptine appeared to be more effective than fluoxetine in treating anxiety, but there was no significant reduction in anxiety symptoms over time. Replication of this study is needed to confirm the results.


New brief PTSD screening instrument may detect more PTSD cases than PC-PTSD

**Key Findings:** The authors developed the New York PTSD Risk Score, a new brief PTSD screening instrument that can be used in clinical practice. This survey contains 10 questions and consists of the Primary Care PTSD Screen (PC-PTSD) and questions on sleep disturbance, access to care status, depression symptoms, trauma history and demographics. When tested on New York City residents one year after the World Trade Center attack, specificity of the tool was 88.1% and the sensitivity was 91.9%, although the demographic questions did not significantly add to the predictive ability of the screener. The screener was also externally validated in pain and trauma patient samples.

**Study type:** Survey development and validation

**Sample:** 2,369 New York City residents one year after the World Trade Center attack, 705 chronic pain patients and 225 trauma patients

**Implications:** Although the PC-PTSD (which is included in military post-deployment health assessments) is a good brief screening tool for PTSD, the addition of a few other risk factor questions can further increase the ability of the survey to detect current PTSD cases. The New York PTSD Risk Score survey should be validated in recently deployed military personnel to determine its utility among this population.


Preventing PTSD through early cognitive behavioral therapy

**Key Findings:** Twelve weeks of prolonged exposure or cognitive therapy treatment initiated soon after trauma was effective in reducing PTSD rates at five months post-trauma (significantly lower PTSD rates compared to wait list or placebo) among patients who met PTSD diagnostic criteria approximately 10 days post-trauma. Waiting list patients with PTSD at five months post-trauma who then completed 12 weeks of prolonged exposure showed a significant reduction in PTSD symptoms at nine months post-trauma, with scores similar to patients who initially received prolonged exposure. However, early treatment with the SSRI escitalopram was not effective in reducing PTSD rates at five months compared to placebo.

**Study type:** Randomized controlled trial with clinical assessments

**Sample:** 242 trauma patients meeting PTSD diagnostic criteria shortly after traumatic event (mean=9.61 days)

**Implications:** Prolonged exposure and cognitive therapy started one month post-trauma can effectively prevent chronic PTSD in recent trauma survivors with PTSD symptoms. Early, trauma-focused cognitive behavioral therapies should be considered for individuals with recent traumas, although delayed treatment is also acceptable because it may be as effective as early treatment. Further evaluation of the lack of improvement with early SSRI treatment is needed.

Resilience predicts positive PTSD treatment response

**Key Findings:** Higher pre-treatment resilience scores (measured by the Connor-Davidson Resilience Scale) predicted a positive treatment response among PTSD patients receiving either venlafaxine extended release treatment or placebo. Higher baseline resilience scores predicted PTSD remission in both treatment groups and predicted change in PTSD symptom levels among the placebo group, but only the 10-item version of the resilience scale reached statistical significance in predicting change in PTSD symptom levels among the venlafaxine group.

**Study type:** Randomized controlled trial with self-report and clinical assessments

**Sample:** 687 chronic PTSD patients

**Implications:** Individuals with higher resilience before starting PTSD treatment with either venlafaxine or placebo have better treatment outcomes compared to those with lower resilience. These findings should prompt investigation into whether incorporation of resilience training early into treatment could enhance treatment effectiveness. Further research is also needed to determine which aspects of resilience are most predictive of improved treatment outcomes.


Automated cognitive behavior e-therapy programs effective in treating anxiety disorders

**Key Findings:** An evaluation of the effectiveness of five fully automated self-help cognitive behavior e-therapy programs for anxiety disorders found participants reported significant reductions of the clinical disorder severity ratings of all five anxiety disorders: generalized anxiety disorder (GAD), panic disorder with or without agoraphobia (PD/A), obsessive–compulsive disorder (OCD), posttraumatic stress disorder (PTSD) and social anxiety disorder (SAD).

**Study type:** Treatment evaluation study with self-report assessments

**Sample:** 225 general population adults seeking e-therapy for an anxiety disorder

**Implications:** All five fully automated self-help e-therapy programs demonstrated effectiveness in decreasing anxiety disorder symptoms along with having good treatment satisfaction. This study (especially for the PTSD program) should be replicated in military populations, with the goal of having another option for effective mental health treatment in this population.


The predictive relationship of insomnia and psychological symptoms among combat veterans

**Key Findings:** Insomnia at four months post-deployment was a significant predictor of change in depression and PTSD symptoms at 12 months post-deployment among combat-deployed soldiers. However, depression and PTSD symptoms at four months post-deployment were not significant predictors of change in insomnia at 12 months post-deployment.

**Study type:** Prospective study with self-report assessments

**Sample:** 659 active-duty combat soldiers recently deployed to Iraq

**Implications:** Insomnia in combat veterans is a predictor of future PTSD and depression symptoms. Sleep problems among military personnel should therefore be identified and aggressively addressed as they occur, as they could potentially lead to psychological symptoms in the future.


Mantram interventions can reduce military-related PTSD symptoms

**Key Findings:** PTSD patients who practiced a six-week mantram intervention (repetition of a sacred word or phrase), which served as an adjunct to treatment as usual, reported a significantly greater decrease in PTSD symptoms compared to patients receiving only treatment as usual. Those receiving the mantram intervention also showed increased perception of Existential Spiritual Well Being (ESWB), whereas ESWB
scores decreased for individuals receiving treatment as usual. Further analysis revealed that the mantram intervention reduced PTSD symptoms via the increase in ESWB.

**Study type:** Randomized controlled trial with self-report assessments

**Sample:** 136 (intervention, N=66; control, N=70) outpatient veterans with military-related PTSD

**Implications:** Mantram interventions may provide PTSD patients with an awareness of a higher power or inner strength that assists them in managing their symptoms. Further research is needed on the mechanisms of PTSD reduction through increases in spiritual well being.


**Poor health behaviors associated with PTSD in cardiovascular disease patients**

**Key Findings:** Cardiovascular disease (CVD) patients with PTSD were more likely to report greater levels of physical inactivity (i.e., less exercise), medication nonadherence, and a greater smoking history than CVD patients with no PTSD. However, the associations of PTSD with inactivity and medication nonadherence disappeared after adjusting for depression, and the association with smoking history weakened after adjusting for low income.

**Study type:** Cross-sectional study with self-report and interview assessments

**Sample:** 1,022 patients (838 men and 186 women) with CVD recruited from San Francisco hospitals and clinics

**Implications:** PTSD may be associated with poor health behaviors, such as lack of exercise, smoking and medicinal negligence, that could help explain the relationship between PTSD and CVD risk, but the findings suggest that such factors as depression or lower income could help explain the PTSD-poor health behavior link. Patients with PTSD (especially comorbid with depression) may need targeted interventions for unhealthy behaviors in order to prevent CVD development.


**Seeking Safety: A manualized therapy for comorbid SUD and PTSD**

**Key Findings:** Seeking Safety, a manualized therapy for comorbid substance use disorders (SUD) and posttraumatic stress disorder (PTSD), was associated with better drug use outcomes compared to treatment as usual, but alcohol use and PTSD severity decreased equally under both treatments.

**Study type:** Randomized controlled trial with self-report assessments

**Sample:** 98 male military veterans with a substance use disorder and co-occurring PTSD symptomatology

**Implications:** Seeking Safety has potential as a viable alternative to treatment as usual to reduce drug and alcohol use as well as PTSD severity in male veterans with SUD and co-occurring PTSD symptomatology.

VA integrated care clinics may increase mental health and social services care access in veterans

Key Findings: Veterans who were seen in a Department of Veterans Affairs (VA) integrated care clinic (containing primary care, mental health and social services) were more likely to have had a within-30-day mental health evaluation and social services evaluation compared to veterans receiving usual care (a standard primary care visit with referral for psychosocial services as needed).

Study type: Retrospective cohort study using VA administrative data
Sample: 526 Iraq and Afghanistan veterans initiating primary care at a VA medical center
Implications: Co-locating primary care, mental health and social services in one integrated clinic may increase the amount of mental health care and social services received by veterans and decrease barriers to care.


TEST YOUR KNOWLEDGE!

According to the summary “Referrals and treatment for mental health symptoms uncommon after post-deployment screening” (pg. 2), 40% of service members taking the Post-Deployment Health Re-Assessment self-reported mental health symptoms, but how many service members received referrals from the provider reviewing this assessment?

A. 40%
B. 20%
C. 10%
D. 3%

Answer: D

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