



VOLUME 3 · NO. 1  
WINTER 2011

The *Combat & Operational Stress Research Quarterly* is a compilation of recent research on combat and operational stress, including relevant findings on the etiology, course and treatment of Posttraumatic Stress Disorder (PTSD). The intent of this publication is to facilitate translational research by providing busy clinicians with up-to-date findings, with the potential to guide and inform evidence-based treatment.

Published by:  
Naval Center for Combat & Operational Stress Control (NCCOSC)  
34960 Bob Wilson Dr., Suite 400  
San Diego, CA 92134-6400

All issues of the Combat & Operational Stress Research Quarterly are available online at: [www.nccosc.navy.mil](http://www.nccosc.navy.mil)

Editorial Members:

Editor/Writer:  
Kimberly Schmitz, MS

Writers:  
Stephanie Raducha, BA  
Amela Ahmetovic, BA

Content Assistance:  
Jennifer Webb-Murphy, PhD

Copy Editor:  
Margery Farnsworth, BA

**Email us!**  
To receive this publication in your inbox, or if you have an article or other submission you would like to have included in a subsequent edition, please contact us at [nmcsc.nccosc@med.navy.mil](mailto:nmcsc.nccosc@med.navy.mil). Also, please contact us if you need assistance pursuing a research study involving combat and operational stress, or if you would like to comment on this publication. Thank you.

# COMBAT & OPERATIONAL STRESS RESEARCH QUARTERLY

A RESEARCH PUBLICATION FOR PROVIDERS

A PUBLICATION OF  
THE NAVAL CENTER FOR  
COMBAT & OPERATIONAL  
STRESS CONTROL



## Insomnia may predict PTSD among service members post-deployment

**Key Findings:** Insomnia was the most common PTSD symptom reported by service members immediately following deployment (33%, increasing to 37% after three months). Service members returning from Iraq or Afghanistan were more likely than those deployed elsewhere to report insomnia immediately upon return (41% vs. 25%). Individuals reporting insomnia immediately following deployment had higher PTSD scores three months later compared to those who did not initially report insomnia.

**Study type:** Retrospective record review of post-deployment screenings conducted zero and three months post-deployment

**Sample:** 2,249 records of previously deployed service members containing information on 1,887 unique individuals (many individuals had initial screenings but not follow-up or vice versa)

**Implications:** Insomnia is a frequent and persistent complaint among service members returning from deployment. Further research and clinical attention are warranted, especially in regard to the relationship of insomnia with PTSD.

McLay, R.N., Klam, W.P. & Volkert, S.L. (2010). Insomnia is the most commonly reported symptom and predicts other symptoms of post-traumatic stress disorder in U.S. service members returning from military deployments. *Military Medicine*, 175 (10), 759-62.

### IN THIS EDITION

Insomnia may predict PTSD among service members post-deployment.....1	Duration and location of deployment predict PTSD development .....4
Psychotherapy more effective if extended into outpatient sessions among inpatient injury patients.....2	Increased misconduct in combat-deployed Marines with PTSD .....5
VA mental health diagnoses high among injured OEF/OIF veterans .....2	Are some PTSD symptoms not necessarily the result of trauma?.....5
Requiring both active avoidance and numbing symptoms improves specificity for PTSD diagnoses.....2	Symptoms of post-concussion syndrome after mTBI greater among service members with greater PTSD severity ...5
PTSD weakens the protective effect of social support on suicide risk .....3	Attentional threat avoidance stemming from acute stress is linked to PTSD symptoms .....6
Prazosin may be effective in reducing trauma nightmares among deployed personnel.....3	Range of combat experiences predicts suicide.....6
Range of personality disorders associated with PTSD.....3	More medical problems but less health care utilization among veterans with psychiatric disorders .....6
Prolonged exposure effective in treating PTSD in routine VA mental healthcare .....4	Trauma risk management during deployment may reduce post-deployment psychological distress .....6
Trauma Management Therapy leads to an increase in social functioning compared to exposure therapy alone .....4	Blast and non-blast mTBIs result in similar symptoms .....7
Specific sources of social support as protective factors for PTSD in combat veterans .....4	Nightmare frequency among Vietnam vets with PTSD not reduced by imagery rehearsal therapy .....7
	Test your knowledge! .....8

## Psychotherapy more effective if extended into outpatient sessions among inpatient injury patients

**Key Findings:** Inpatient plus outpatient psychotherapy sessions after traumatic injury led to more resolution of depression, anxiety and PTSD symptoms one year post-injury compared to inpatient sessions alone, although comparisons did not meet statistical significance. Twenty-one percent of patients who received only inpatient sessions still had at least one mental health disorder one year post-injury, whereas no patients in the group that also received outpatient therapy had any mental health disorders; this was a statistically significant difference.

**Study type:** Randomized controlled trial of eight sessions of inpatient psychotherapy vs. the inpatient psychotherapy plus up to six sessions of outpatient psychotherapy

**Sample:** 113 injury patients at four German trauma centers

**Implications:** Psychotherapy treatment of traumatic injury patients may be more effective in reducing depression, anxiety and PTSD if extended beyond inpatient care into several outpatient sessions. Due to the small sample size of the patients who completed follow-up (n=46), these results are preliminary and need to be replicated.

Tecic, T., Schneider, A., Althaus, A., Schmidt, Y., Bierbaum, C., Lefering, R., et al. (in press). Early Short-Term Inpatient Psychotherapeutic Treatment Versus Continued Outpatient Psychotherapy on Psychosocial Outcome: A Randomized Controlled Trial in Trauma Patients. *The Journal of Trauma*.

## VA mental health diagnoses high among injured OEF/OIF veterans

**Key Findings:** Of 216 OEF/OIF veterans who accessed VA care subsequent to being treated at a DoD facility for a traumatic injury, 75% sought care from the VA within one year of DoD discharge. Most of the veterans (81%) in this sample accessed VA mental health services and had psychiatric conditions diagnosed at the VA (71%). Approximately half of the sample met diagnostic criteria for either depression (27%) or PTSD (38%). Treatment retention was significantly greater for those receiving psychiatric care compared to those not receiving psychiatric care.

**Study type:** Retrospective record review

**Sample:** 994 inpatients treated at a DoD trauma treatment facility for burn or non-burn injuries suffered

while deployed to OEF/OIF between 2001-2006, 216 of whom were identified as having subsequently accessed VA healthcare by September 2009

**Implications:** A sizeable percentage of physical injury patients who accessed VA healthcare sought mental health care, which could indicate that there is less stigma surrounding mental health care at the VA compared to care received at DoD facilities while on active duty. This study attempted to determine the timing and rates of transition from DoD medical care to VA medical care for wounded OEF/OIF veterans, but more information on what percentage of these service members are still active duty and receiving care from a DoD facility is needed to make a more accurate determination on transition rates.

Copeland, L.A., Zeber, J.E., Bingham, M.O., Pugh, M.J., Noël, P.H., Schmacker, E.R., Lawrence, V.A. (in press). Transition from military to VHA care: Psychiatric health services for Iraq/Afghanistan combat-wounded. *Journal of Affective Disorders*.

## Requiring both active avoidance and numbing symptoms improves specificity for PTSD diagnoses

**Key Findings:** Requiring both active avoidance and emotional numbing for a PTSD diagnosis, as is recommended in the DSM-V, resulted in approximately 25% fewer PTSD diagnoses compared to DSM-IV requirements among injury survivors. At three months post-injury, those cases that met DSM-IV but not DSM-V PTSD criteria reported lower symptoms across all four symptom clusters (re-experiencing, avoidance, emotional numbing and hyperarousal), but at 12 months, the difference in meeting the DSM-V requirement was primarily due to failure to meet the active avoidance criteria. Also at 12 months, fewer patients meeting depression criteria also met PTSD criteria (44% vs. 34%) according to the DSM-V criteria, primarily due to the requirement of avoidance symptoms.

**Study type:** Longitudinal study with clinical assessments

**Sample:** 835 traumatic injury survivors

**Implications:** These findings suggest that requiring both active avoidance and emotional numbing symptoms for a PTSD diagnosis effectively refines the PTSD diagnosis and reduces spurious co-morbid PTSD diagnoses among those with depression.

Forbes, D., Fletcher, S., Lockwood, E., O'Donnell, M., Creamer, M., Bryant, R.A., et al. (in press). Requiring both avoidance and emotional numbing in DSM-V PTSD: Will it help? *Journal of Affective Disorders*.

## PTSD weakens the protective effect of social support on suicide risk

**Key Findings:** Satisfaction with social networks, along with being married, were protective factors for suicide risk among OEF/OIF veterans. Satisfaction with social networks was protective for suicide risk in veterans with or without PTSD, but was much less protective for veterans with PTSD.

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

**Sample:** 431 OEF/OIF veterans referred for mental health services at a VA medical center

**Implications:** The presence of PTSD may weaken the protective effect of social support networks on suicide risk among treatment-seeking OEF/OIF veterans. Clinicians should assess social network satisfaction and encourage interpersonal coping skills and greater social integration, especially for veterans with PTSD.

Jakupcak, M., Vannoy, S., Imel, Z., Cook, J.W., Fontana, A., Rosenheck, R., et al. (2010). Does PTSD moderate the relationship between social support and suicide risk in Iraq and Afghanistan War Veterans seeking mental health treatment? *Depression and Anxiety*, 27 (11), 1001-5.

## Prazosin may be effective in reducing trauma nightmares among deployed personnel

**Key Findings:** Of 13 Soldiers who received the drug prazosin for trauma nightmares while deployed to Iraq, six improved markedly and three improved moderately on the Clinical Global Impression of Change scale. Overall, distressing dreams and disturbed sleep improved significantly among the patients treated with the drug, and minimal side effects were reported.

**Study type:** Treatment evaluation study

**Sample:** 13 Soldiers in northern Iraq suffering from distressing trauma nightmares

**Implications:** Although the sample size was very small, the findings suggest that prazosin may be an effective, well-tolerated treatment for trauma nightmares among deployed military personnel. Randomized controlled trials with large sample sizes are needed to confirm the effectiveness of prazosin among persons suffering from trauma nightmares.

Calohan, J., Peterson, K., Peskind, E.R. & Raskind, M.A. (2010). Prazosin treatment of trauma nightmares and sleep disturbance in soldiers deployed in Iraq. *Journal of Traumatic Stress*, 23 (5), 645-48.

## Range of personality disorders associated with PTSD

**Key Findings:** Participants with either partial or full PTSD were more likely than trauma controls to meet criteria for schizotypal, narcissistic or borderline personality disorders (PDs) after accounting for demographics and other psychiatric comorbidity. Full PTSD was positively related to obsessive-compulsive PD only among women. Partial PTSD was positively linked to antisocial PD only among women, while partial PTSD was negatively associated with avoidant PD only among men.

**Study type:** Population-based cohort study

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

**Implications:** There are a range of personality disorders found to be comorbid with PTSD in a general population sample of U.S. adults. Additional research is needed to address the diagnostic and treatment implications of these findings.

Pietrzak, R.H., Goldstein, R.B., Southwick, S.M. & Grant, B.F. (in press). Personality disorders associated with full and partial posttraumatic stress disorder in the U.S. population: Results from Wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Psychiatric Research*.

## REVIEWS TO PERUSE

Cukor, J., Olden, M., Lee, F. & Difede, J. (2010). **Evidence-based treatments for PTSD, new directions, and special challenges.** *Annals of the New York Academy of Sciences*, 1208, 82-9.

Bryant, R.A., Friedman, M.J., Spiegel, D., Ursano, R. & Strain, J. (in press). **A review of acute stress disorder in DSM-5.** *Depression and Anxiety*.

Bryan, C.J., Kanzler, K.E., Durham, T.L., West, C.L. & Greene, E. (2010). **Challenges and considerations for managing suicide risk in combat zones.** *Military Medicine*, 175 (10), 713-8.



## Prolonged exposure effective in treating PTSD in routine VA mental healthcare

**Key Findings:** Combat veterans receiving prolonged exposure (PE) therapy for PTSD at an outpatient VA facility showed an equal amount of improvement as those who received PE as part of a randomized controlled trial (RCT).

**Study type:** Treatment evaluation study

**Sample:** 65 OEF/OIF veterans with a PTSD diagnosis

**Implications:** PE therapy can be used in regular VA mental healthcare contexts with similar benefits as that shown in RCTs, but further efforts are needed to effectively disseminate and implement the therapy into routine healthcare and increase retention rates for the treatment.

Tuerk, P.W., Yoder, M., Grubaugh, A., Myrick, H., Hamner, M. & Acierno, R. (in press). Prolonged exposure therapy for combat-related posttraumatic stress disorder: An examination of treatment effectiveness for veterans of the wars in Afghanistan and Iraq. *Journal of Anxiety Disorders*.

## Trauma Management Therapy leads to an increase in social functioning compared to exposure therapy alone

**Key Findings:** Participants undergoing Trauma Management Therapy (combining exposure therapy and social emotional rehabilitation) and participants undergoing only exposure therapy showed significant reductions in PTSD symptoms (as measured by the Clinician Administered PTSD Scale and the PTSD Checklist-Military) from pre- to post-treatment. Participants in the Trauma Management Therapy group showed increased frequency of and greater time spent in social activities; a decrease in episodes of physical rage also was noted compared to those undergoing exposure therapy only.

**Study type:** Randomized controlled trial

**Sample:** 35 male Vietnam veterans with PTSD

**Implications:** Multi-component cognitive behavioral therapies such as Trauma Management Therapy show promise for improving social functioning in veterans with PTSD, more so than exposure therapy alone.

Beidel, D.C., Frueh, B.C., Uhde, T.W., Wong, N. & Mentrikoski, J.M. (in press). Multicomponent behavioral treatment for chronic combat-related posttraumatic stress disorder: A randomized controlled trial. *Journal of Anxiety Disorders*.

## Specific sources of social support as protective factors for PTSD in combat veterans

**Key Findings:** Combat veterans with higher levels of PTSD symptomatology reported lower levels of satisfaction with perceived social support. When social support was divided into four sources, it was found that support from significant others, family and military peers was related to lower PTSD symptoms, but support from friends was not related to PTSD.

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

**Sample:** 83 male married combat veterans

**Implications:** These findings suggest combat veterans may differentiate between specific sources of social support, some of which may have a protective effect on the level of PTSD. However, the finding of social support from friends not being related to PTSD symptoms should be further investigated by repeating the study and specifying whether the finding applies to friends who are military or non-military. The study should also be repeated with a population of non-married veterans who might spend more time with and receive more support from friends rather than spouses.

Wilcox, S. (2010). Social relationships and PTSD symptomatology in combat veterans. *Psychological Trauma: Theory, Research, Practice, and Policy*, 2 (3), 175-182.

## Duration and location of deployment predict PTSD development

**Key Findings:** Duration and location of deployment are strong predictors of PTSD among active duty personnel of the four service branches (Army, Marines, Navy, and Air Force). Personnel deployed more than 180 days were more likely to have PTSD than those deployed for shorter durations. Further, personnel deployed to Iraq or Afghanistan were more likely to have PTSD than those not deployed under OEF/OIF, with the largest effect observed among Navy members (OR=9.06). A long deployment worsens the effect of being deployed to Iraq or Afghanistan on developing PTSD among Army and Navy members.

**Study type:** Retrospective record review

**Sample:** Enlisted personnel (n =678,227) from the Army, Marines, Navy and Air Force who served between 2001 and 2006

**Implications:** Active duty personnel deployed to Iraq and/or Afghanistan and those deployed for longer periods of time are at higher risk of developing PTSD.

Personnel serving in the Navy as individual augmentees need to be rigorously trained and also educated about stressors and mental health challenges that may be presented once deployed in support of OEF/OIF.

Shen, Y.C., Arkes, J., Kwan, B.W., Tan, L.Y. & Williams, T.V. (2010). Effects of Iraq/Afghanistan deployments on PTSD diagnoses for still active personnel in all four services. *Military Medicine*, 175 (10), 763-69.

## Increased misconduct in combat-deployed Marines with PTSD

**Key Findings:** Both war-deployed and non-war-deployed Marines with a psychiatric diagnosis other than PTSD had an increased risk for all misconduct outcomes investigated (demotions, drug-related discharges and punitive discharges). PTSD was a significant predictor of drug-related discharges in all Marines. In the war-deployed cohort only, PTSD was associated with an increased risk for demotions and punitive discharges.

**Study type:** Population-based cohort study

**Sample:** 91,825 enlisted U.S. Marines (77,881 war-deployed and 13,944 non-war-deployed) who entered the military between October 2001 and September 2006 and deployed before October 2007

**Implications:** Combat veterans with PTSD and other psychiatric diagnoses are at increased risk for misconduct outcomes, suggesting the need for mental health interventions that also address behavioral problems. Personnel with such psychiatric disorders may also face additional barriers to care if their discharge leads to disqualification from VA care.

Highfill-McRoy, R.M., Larson, G.E., Booth-Kewley, S. & Garland, C.F. (2010). Psychiatric diagnoses and punishment for misconduct: the effects of PTSD in combat-deployed Marines. *BMC Psychiatry*, 10:88.

## Are some PTSD symptoms not necessarily the result of trauma?

**Key Findings:** Combat veterans with PTSD showed significantly greater psychopathology across all aspects measured (using the SCL-90-R, a measure of current general psychiatric symptomatology, and two PTSD scales) than their combat-unexposed identical twins, as well as combat veterans without PTSD and their twins.

**Study type:** Case-control twin study

**Sample:** 104 identical twin pairs discordant for combat exposure in Vietnam; 50 of the exposed twins have PTSD

**Implications:** Recent studies have suggested that many PTSD symptoms may not necessarily be the result of trauma and would have existed even in the absence of the traumatic event, but this study provides some evidence to refute that claim. Findings from the study support the conclusion that the vast majority of psychiatric symptoms (both general and PTSD-related) reported by combat veterans with PTSD would not have been present if they had not been exposed to combat trauma (as demonstrated by their non-combat exposed twins). Trauma seems to be the primary cause of psychopathology after combat, as opposed to non-trauma-related factors.

Gilbertson, M.W., McFarlane, A.C., Weathers, F.W., Keane, T.M., Yehuda, R., Shalev, A.Y., et al. (2010). Is trauma a causal agent of psychopathologic symptoms in posttraumatic stress disorder? Findings from identical twins discordant for combat exposure. *Journal of Clinical Psychiatry*, 71 (10), 1324-1330.

## Symptoms of post-concussion syndrome after mTBI greater among service members with greater PTSD severity

**Key Findings:** Service members with a mild traumatic brain injury (mTBI) and higher levels of PTSD symptoms (measured by the PTSD Checklist) reported significantly higher levels (3-8 times higher) of post-concussion syndrome (PCS) symptoms than those with an mTBI and lower levels of PTSD symptoms. Increased symptom reporting was found for all symptom clusters of PCS (i.e., cognitive, affective, sensory and somatic) among those with higher PTSD symptom levels.

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

**Sample:** 472 service members with mTBI who had previously deployed to a combat zone

**Implications:** Factors unrelated to physical brain injury (i.e., PTSD symptoms) may contribute to elevated PCS symptom reporting among service members with mTBI, thus further complicating accurate PCS diagnosis.

Cooper, D.B., Kennedy, J.E., Cullen, M.A., Critchfield, E., Amador, R.R. & Bowles, A.O. (2011). Association between combat stress and post-concussive symptom reporting in OEF/OIF service members with mild traumatic brain injuries. *Brain Injury*, 25 (1), 1-7.

## Attentional threat avoidance stemming from acute stress is linked to PTSD symptoms

**Key Findings:** After exposure to simulated combat, military participants showed a shift in attention away from threat, whereas a control group that was not exposed to combat simulation showed no change in threat-related attention bias. Stronger threat avoidance in the combat simulation group was linked to the severity of post-traumatic symptoms, while no such association was found in the control group.

**Study type:** Randomized controlled trial

**Sample:** 131 male Israeli Defense Force paratroopers

**Implications:** Exposure to acute stress may cause some individuals to shift their attention away from threats in order to minimize stress exposure, although this avoidance of threat is linked to PTSD symptoms. Further research is needed to examine the correlation between this tendency and how it may affect the development of and treatment for PTSD.

Wald, I., Lubin, G., Holoshitz, Y., Muller, D., Fruchter, E., Pine, D.S., et al. (in press). Battlefield-like stress following simulated combat and suppression of attention bias to threat. *Psychological Medicine*.

## Range of combat experiences predicts suicide

**Key Findings:** A greater range of combat experiences predicts an increased ability to overcome the fear and pain associated with suicide; this increases the likelihood of dying by suicide, above and beyond depression and PTSD symptoms, previous suicidality and other common risk factors for suicide. Combat experience did not predict perceived burdensomeness or thwarted belongingness, two other factors proposed to be necessary for suicide.

**Study type:** Retrospective review of assessments in clinical and non-clinical military populations

**Sample:** 522 service members who were deployed in support of OIF

**Implications:** Combat experiences should be considered as a risk factor for the capability of dying by suicide. However, the desire for suicide is proposed to emerge not from combat or other provocative experiences per se, but rather from the individual's cognitive appraisals of the provocative events.

Bryan, C.J., Cukrowicz, K.C., West, C.L. & Morrow, C.E. (2010). Combat experience and the acquired capability for suicide. *Journal of Clinical Psychology*, 66 (10), 1044-1056.

## More medical problems but less health care utilization among veterans with psychiatric disorders

**Key Findings:** PTSD, depression and substance use disorders are associated with increased medical disease burden and mental health care utilization, but not increased general medical health care utilization. Veterans with PTSD experienced increased medical disease burden over a number of years.

**Study type:** Retrospective chart review

**Sample:** 4,463 OEF/OIF veterans treated in Veterans Administration primary care

**Implications:** Veterans with PTSD, depression and substance use disorders are experiencing more medical diseases, but are not utilizing more medical health care, which could indicate that these psychiatric patients are neglecting needed medical care. Veterans with PTSD specifically may be at risk for increased multiple medical disorders over time, especially if current medical diseases are neglected.

Possemato, K., Wade, M., Andersen, J. & Ouimette, P. (2010). The impact of PTSD, depression, and substance use disorders on disease burden and health care utilization among OEF/OIF veterans. *Psychological Trauma: Theory, Research, Practice, and Policy*, 2 (3), 218-223.

## Trauma risk management during deployment may reduce post-deployment psychological distress

**Key Findings:** Military personnel who have had extensive prior experience with the peer-support trauma mitigation system Traumatic Risk Management (TRiM) during deployments reported lower levels of psychological distress both pre- and post-deployment, as well as more positive perceptions of unit support during deployment, compared to personnel who experienced TRiM for the first time. Both groups show lower levels of distress post-deployment compared to pre-deployment or during deployment. Further, personnel who reported higher levels of distress also perceived lower levels of social support.

**Study type:** Non-randomized parallel group comparison trial of a peer-support system to mitigate the effects of trauma

**Sample:** Two U.K. military units set to deploy to Afghanistan: an Army infantry unit (n= 86) without prior TRiM experience and a Royal Marine Commando unit (n= 94) that had already incorporated TRiM into their distinctive organizational culture

**Implications:** Social support facilitated by TRiM may lower levels of post-deployment distress among military personnel. Further research is needed to determine if this system can ultimately lower the rates of stress injuries (i.e., PTSD) among the active-duty military population.

Frappell-Cooke, W., Gulina, M., Green, K., Hughes, J.H. & Greenberg, N. (2010). Does trauma risk management reduce psychological distress in deployed troops? *Occupational Medicine*, 60 (8), 645-50.

## Blast and non-blast mTBIs result in similar symptoms

**Key Findings:** Minor differences in cognitive performance, psychological symptoms and concussive symptoms were found between mild traumatic brain injuries (mTBI) caused by blast- versus non-blast-mechanisms. Cognitive reaction speed, but not accuracy, was impaired in both blast and non-blast groups compared to performance on pre-injury tests.

**Study type:** Cross-sectional study with clinical and self-report assessments conducted 72 hours after index injury

**Sample:** Deployed personnel (n= 82) with acute mTBI

**Implications:** Similar treatment modalities may be used for blast- and non-blast-induced mTBIs due to the limited differences in cognitive performance, psychological symptoms and concussive symptoms.

Luethcke, C.A., Bryan, C.J., Morrow, C.E. & Isler, W.C. (2010). Comparison of concussive symptoms, cognitive performance and psychological symptoms between acute blast- versus nonblast-induced mild traumatic injury. *Journal of the International Neuropsychological Society*, 17, 1-10.

## Nightmare frequency among Vietnam vets with PTSD not reduced by imagery rehearsal therapy

**Key Findings:** Both imagery rehearsal therapy (IRT) and a comparison treatment for combat-related nightmares (sleep and nightmare management treatment, which incorporates psychoeducation and cognitive-behavioral therapy elements) led to a reduction in PTSD symptoms and improvement in overall sleep quality, but there was no change in nightmare frequency in either treatment condition. There was no significant difference between the two treatments according to primary or secondary outcomes, including nightmare frequency, sleep quality or PTSD symptoms.

**Study type:** Randomized controlled trial of imagery rehearsal therapy for combat-related nightmares

**Sample:** 124 male Vietnam veterans with chronic, severe PTSD

**Implications:** Neither IRT nor a credible psychotherapy control resulted in reduction of nightmare frequency for Vietnam veterans with chronic, severe PTSD. These findings differ from previous clinical trials of IRT that demonstrated positive results. The authors speculate that this could be due to different patient populations in those trials (such as female civilians, some of whom did not meet full criteria for PTSD) or details of the treatment strategies (such as working with a nightmare of lesser intensity that was not a replay of the index trauma).

Cook, J.M., Harb, G.C., Gehrman, P.R., Cary, M.S., Gamble, G.M., Forbes, D., et al. (2010). Imagery rehearsal for posttraumatic nightmares: a randomized controlled trial. *Journal of Traumatic Stress*, 23 (5), 553-63.

## REGISTRATION IS OPEN!

The Navy and Marine Corps Combat & Operational Stress Control Conference 2011 will be held April 26-29, 2011, at the Town & Country Resort and Convention Center in San Diego. To register, please visit our website: [www.nccosc.navy.mil](http://www.nccosc.navy.mil).



## TEST YOUR KNOWLEDGE!

According to the summary “Range of combat experiences predicts suicide” (pg. 6), a greater range of combat experiences predicts which of the following factors thought to be necessary for suicide?

- A. Feelings that one does not belong with other people
- B. Feelings that one is a burden on others or society
- C. An acquired capability to overcome the fear and pain associated with suicide
- D. All of the above

Answer in online version of this newsletter: [www.nccosc.navy.mil](http://www.nccosc.navy.mil).

Any opinion(s) expressed in this publication are those of the respective author(s) and do not reflect upon the official policy of the Bureau of Medicine and Surgery (BUMED), U.S. Navy, or the Department of Defense. The appearance of the previously published material does not constitute endorsement by the Bureau of Medicine and Surgery (BUMED), U.S. Navy, or the Department of Defense for a commercial or private organization.

[WWW.NCCOSC.NAVY.MIL](http://WWW.NCCOSC.NAVY.MIL)

