

# Putting Research to Work for Military Families



Focus:  
Army

## Prevalence and Impact of Short Sleep Deprivation in Redeployed OIF Soldiers

Luxton, D. D., Greenburg, D., Ryan, J., Niven, A., Wheeler, G., & Mysliwiec, D. (2011). Prevalence and impact of short sleep deprivation in redeployed OIF soldiers. *Sleep*, 34(9), 1189-1195. doi:10.5665/sleep.1236

**SUMMARY:** A sample of 2,717 U.S. Army Soldiers completed a survey to assess the prevalence and impact of short sleep duration during redeployment. Seventy-two percent of Soldiers slept less than six hours a day, which was more common among Soldiers reporting combat exposure. Results indicated that sleep deprivation can impact job performance and outcomes related to combat exposure.

### KEY FINDINGS:

- Short sleep duration is common and persists in most (72%) redeployed Soldiers at the 90-180 day mark; average sleep duration was 5.8 hours (SD = 1.2).
- Symptoms of insufficient sleep as defined by the need to nap during the day or an influence on job performance was reported by 16% of Soldiers and was much more common among those with short (less than seven hours) or very short (less than six hours) sleep duration compared to those with normal sleep duration.
- Soldiers with reported combat exposures were much less likely to sleep more than six hours a night; of the four combat exposures measured, being wounded or injured during combat was most strongly associated with short or very short sleep duration.
- There were no differences in sleep duration between sexes, ages, weights, or body mass indexes, but commissioned and warrant officers were more likely to have a normal sleep duration than either enlisted or non-commissioned officers.

### IMPLICATIONS FOR PROGRAMS:

Programs could:

- Provide education to military families on the prevalence and symptoms of short sleep duration following deployment
- Host workshops on basic sleep education for Service members including information on sleep hygiene and good sleep habits
- Offer support groups during reintegration to help families and Service members adjust to the Service member's return, especially when the deployment has included combat exposure

### IMPLICATIONS FOR POLICIES:

Policies could:

- Continue to support programs that offer reintegration services based on healthy sleep to Service members
- Encourage the development and continuation of programs that can promote resilience in Service members, their partners, and children
- Recommend education for service providers around the possible effects of deployment on Service members' health and families

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## METHODS

- Data for this study were collected as part of the Health Risk Assessment II project; U.S. Army Soldiers completed the survey 90-180 days after leaving the combat environment.
- Participants completed PTSD, panic disorder, and depression screening instruments, a brief assessment of mild traumatic brain injury (mTBI), and questions about health and sleep behaviors and combat exposure.
- Statistical analyses were used to examine whether demographic and sleep variables predicted mental health outcomes.

## PARTICIPANTS

- A sample of 2,717 Soldiers completed the survey (96% male).
- The average age of the sample was 25.60 years (SD = 5.70), average weight was 183.00 pounds (SD = 36.00), and average BMI was 26.3 (SD = 4.8).
- Forty-nine percent of the participants were junior enlisted and 44% were non-commissioned officers. Fifty-five percent had completed two to four deployments in support of the Global War on Terror, and the average length of most recent deployment was 398 days.
- No information on race/ethnicity was presented.

## LIMITATIONS

- All measures were self-report screening instruments and the data may not represent the true diagnostic rates of symptoms or disorders.
- Self-reported sleep duration may not be reflective of actual sleep duration as individuals are generally not accurate in this assessment.
- These data were cross-sectional and causal attributions are not appropriate.
- These results may not be representative of the entire Army or other service branches; no information about race/ethnicity was presented.

## AVENUES FOR FUTURE RESEARCH

Future research could:

- Gather longitudinal data of sleep symptoms and health outcomes to better understand the relationships between sleep and health outcomes
- Replicate the study using clinicians' assessments of true diagnostic rates of insomnia following deployment
- Develop interventions to improve sleep duration and quality tailored for Service members who have experienced combat

## ASSESSING RESEARCH THAT WORKS



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