



National Veteran Sleep Survey

Results and Findings

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Background

Although studies have demonstrated that sleep disruption is common in U.S. veterans and active military personnel, less is known about the factors that veterans self-identify as contributing to poor sleep. Similarly, little information exists about veteran experiences, attitudes, and preferences regarding treatment for sleep disorders. To address this knowledge gap, in 2012, VetAdvisor®, LLC, collaborated with Dr. Michael T. Smith, a sleep psychologist and Professor at the Johns Hopkins University School of Medicine, to design a brief survey to collect information about veterans' sleep habits, concerns and treatment experiences.

The purpose of the VetAdvisor® Sleep Survey (VSS) was to help researchers understand the causes of veteran sleep disorders, enhance our overall understanding of these disorders, and determine the potential benefits of sleep coaching and consumer sleep monitoring devices in their treatment. A sleep coach is a wellness advisor who is an expert in sleep issues and their impact on veterans and military personnel. Like an athletic or life coach, a sleep coach works with individuals to identify areas of concern and to develop a plan of action, milestones, and desired outcomes. Sleep coaches observe progress, determine evolving needs, and proactively send alerts and encouragement in order to help veterans overcome barriers to better sleep.

Another important dimension of the survey was to understand the barriers that veterans face with respect to seeking appropriate medical and/or behavioral health treatment for their sleep problems. Because sleep affects everyone, veteran and non-veteran alike, it is a non-stigmatizing way to identify and connect veterans with both integrative well-being programs and appropriate sleep-related medical care.

Findings

- The vast majority of respondents to this survey reported relatively severe sleep deprivation with daytime symptoms, including fatigue and daytime sleepiness.
- Respondents showed a clear interest in behavioral sleep coaching to combat serious sleep deficits. Eighty-six percent would be open to using sleep-tracking products to help improve their sleep and to sharing their sleep data with a sleep coach.
- A substantial number of veterans reporting clinically significant insomnia symptoms were not currently obtaining treatment, possibly due to under diagnosis by medical providers and personal barriers/lack of information about insomnia treatment.
- The Department of Veterans Affairs and other entities interested in providing veteran health services are uniquely poised to address this epidemic by designing a nationwide program such as sleep coaching to provide evidenced based non-medication treatment for insomnia. Such a program would help to identify and connect veterans with more comprehensive integrative well-being services.

Summary

This large sample of veterans, on average, reported deficient amounts of sleep. The vast majority of respondents to this survey reported relatively severe sleep deprivation with daytime symptoms, including fatigue and daytime sleepiness. The vast majority reported that insomnia was the primary reason for insufficient sleep. Enlisted soldiers reported significantly higher rates of insomnia symptoms than officers.

Veterans who actively engaged in combat also reported significantly more symptoms meeting clinical criteria for insomnia. The two most common factors interfering with sleep initiation and maintenance were mental alertness and pain. Veterans who engaged the enemy or actively participated in combat operations reported a much higher rate of trauma-related symptoms as interfering with sleep.

A surprisingly large number of veterans showed a clear interest in behavioral sleep coaching to combat serious sleep deficits. Among all veterans surveyed (N=2866), 72% would be interested in working with a trained sleep coach whether face to face or via email, phone, chat or text. Eighty-six percent would be open to using sleep-tracking products to help improve their sleep and to sharing their sleep data with a sleep coach.

However, a substantial number of veterans reporting clinically significant insomnia symptoms were not currently obtaining treatment, possibly due to under diagnosis by medical providers and personal barriers/lack of information about insomnia treatment. Common barriers reported for seeking treatment for insomnia symptoms included: not wanting to take medications, stigma, and feeling hopeless that any treatment will work. Alarmingly, many veterans in the sample reported turning to alcohol or over-the-counter (OTC) medication to help them sleep.

This is unfortunate because frequent alcohol use can be detrimental to health and alcohol contributes to sleep disturbance. Over-the-counter sleep medications have poor efficacy data and high rates of daytime sedation as a side effect.

Thus, the Department of Veterans Affairs and other entities interested in providing veteran health services are uniquely poised to address this epidemic by designing a nationwide program such as sleep coaching to provide evidenced based non-medication treatment for insomnia. Such a program would help to identify and connect veterans with more comprehensive integrative well-being services.

Methods

Participants completing the VetAdvisor® Sleep Survey (VSS) were recruited through outreach to non-profit veterans' organizations and media outlets targeting veterans and active duty personnel. We utilized web and social media sources – blog posts, Twitter hashtags, information aggregators, and Facebook wall posts, etc. Outreach to traditional media included feature stories in print, radio, and television media. We limited the VSS to 37 questions, including: demographics, service experience, and sleep-related items. Answer options included both check boxes and free text entries to gather veteran-centric data. Volunteers completed the survey exclusively via a secure, online portal. Identifying information was not collected. This study was approved by the Johns Hopkins University School of Medicine Institutional Review Board.

Results

Participants

Two thousand, eight hundred and sixty six volunteers completed the VSS (11.5% female, 80% white, 11% Black, 1.3% Asian, 3% other, 6% Hispanic/Latino). The mean age was 54 years (SD=13.3, ranging from 18 to 96). The five branches of the military were represented [Army, 56%; Navy, 16%, Marines, 10%, Air Force 16%, Coast Guard, 1%]. Seventy two percent of respondents reported having been deployed in a combat zone and 53% reported having engaged the enemy or actively participated in combat operations. Fourteen percent were officers.

Self-reported Sleep Duration and Quality

Results of the VetAdvisor® survey suggest that this large sample of veterans was severely sleep-deprived and this degree of sleep-deprivation is cause for concern. The average amount of sleep was = 5.6 hours (SD=1.6 hours). For simple comparative purposes,

Figure 1 demonstrates that compared to the general adult population, veterans in this sample reported sleeping 1.1 hours less than average US adults. Veterans in this sample recognized that their sleep is insufficient with 76% reporting that they do not typically get enough sleep. Even more alarming, 91% of the veterans surveyed reported often feeling tired, fatigued or sleepy during the day. “Having trouble falling or staying asleep” was by far the most frequent reason cited by veterans as a cause of not getting enough sleep (70%). Other common reasons included: “sleep is poor quality” (53%), “being too busy with work or family responsibilities” (13%), “being a night owl” (12%), and “liking to watch television late at night” (8%).

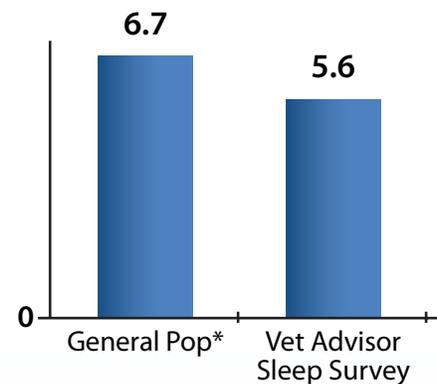


Figure 1
VetAdvisor Survey

Regularly get a good night's sleep (%)

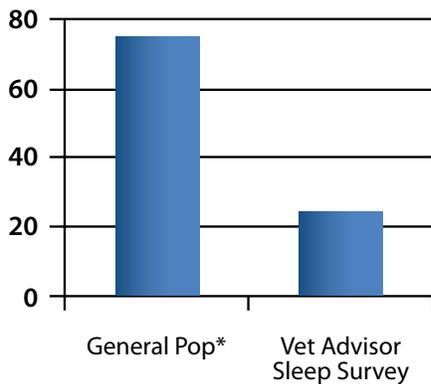


Figure 2

Importantly, 74.3% of respondents reported meeting general clinical criteria for insomnia (i.e., trouble falling asleep or staying asleep, 3 or more nights per week for at least a month with at least some significant sleep-related daytime symptoms). In the general population, the prevalence of chronic insomnia is 10-15%³. In our sample, enlisted soldiers more often reported symptoms meeting criteria for insomnia (77% n=1808) than officers [(59% n=239), statistically significant, $p < .001$] (Figure 2). Veterans who had actively engaged in combat were also more likely to report insomnia than those who had not actively engaged in combat (78.7% vs. 69.2%) [statistically significant, $p < .001$].

Factors Interfering with Sleep

Participants were presented with a list of possible factors (and a write-in option) contributing to sleep disruption. Figure 3 depicts the twelve most frequently reported factors rated as either somewhat or greatly interfering with sleep. Overall, the two most common reasons for sleep disruption were: 1) experiencing mental alertness/thoughts won't slow down and 2) pain.

Comparing veterans who had actively participated in combat to those who were not active in combat yielded some significant differences as shown in Figure 3. While factors associated with normal daily living such as financial stress and worrying about daily concerns appeared to contribute to sleep disruption in both groups equally, the factors associated with trauma such as nightmares or feeling the need to be "on guard" were much higher in the active combat engagement group.

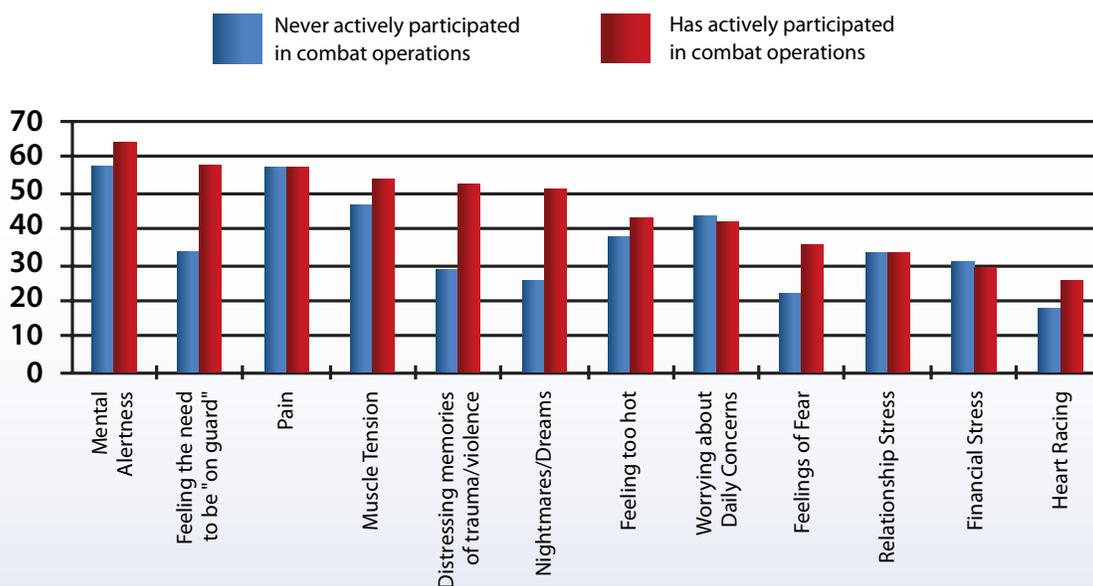


Figure 3

Not surprisingly, when veterans were asked to rate the factor with the single greatest impact on their sleep, the groups differed as well. For those actively engaged in combat, the top 3 reasons in order were: 1) mental alertness/thoughts won't slow down (15.7%), 2) pain (12.2%), and 3) nightmares/dreams (10.7%). For those not engaging in combat the top three reasons were: 1) pain (18.7%), 2) mental alertness/thoughts won't slow down (15.3%), and 3) worrying about daily concerns (6.9%).

Sleep-Related Treatment Experience and Attitudes about Treatment

Approximately three quarters of respondents to the VetAdvisor® Sleep Survey reported being enrolled with the Department of Veterans Affairs (VA) for healthcare services and, of those, 86% received healthcare services from the VA. Fifty-four percent (n=1471) reported that they had been diagnosed with a sleep disorder by a healthcare professional. Of those reporting any sleep disorder diagnosis, 53% (n=779) reported actively undergoing treatment for sleep apnea, 16.3% for insomnia (n=240), and 10.5% (n=154) for nightmare disorder. Surprisingly, 39% (n=1110) of the entire sample reported having been prescribed a continuous positive pressure airway machine or dental appliance for sleep apnea at some point in their life. Although many veterans in this sample appear to be receiving treatment for sleep apnea, this may not be case with respect to insomnia. We estimate that 74% of the respondents would be likely to meet general criteria for insomnia, but only 16.5% of these (n=474) reported being currently diagnosed with insomnia by a health professional.

Figure 4 depicts the frequency that the entire sample (N=2866) reported using prescription sleeping medications (24.6%), over-the-counter sleep aids (10.3%) and alcohol (9.1%) at least “often” for sleeping problems. For simple comparison, we present data on these rates from the National Sleep Foundation poll of the general adult population². An additional 14.26% of veterans in this sample reported using prescription medicines “sometimes.” An additional 21.3% reported “sometimes” using alcohol for sleep and an additional 20% reported using over the counter sleep aids “sometimes.”

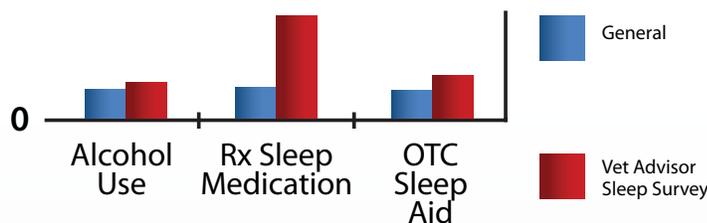


Figure 4

Interestingly, 28% of veterans (n=677) reported that they had not discussed their sleeping problems with a healthcare professional. “I don’t want to take a sleeping medication” was the most common reason provided for not discussing sleep problems with a healthcare professional (33% n=233). Other top reasons

included: “I don’t like going to the doctor” (24%, n =160); “I don’t want to be labeled” (23% n=157); and “I don’t think any treatment will work” (23%, n=158).

However, among all veterans surveyed (N=2866), 72% would be interested in working with a trained sleep coach whether face to face or via email, phone, chat or text. Eighty-six percent would be open to using sleep-tracking products to help improve their sleep.

Conclusion

This large sample of veterans, on average, reported deficient amounts of sleep. A substantial number of veterans reporting clinically significant insomnia symptoms are not obtaining treatment, possibly due to under diagnosis by medical providers and personal barriers/lack of information about insomnia treatment. Many veterans in the sample reported turning to alcohol or over-the-counter (OTC) medication to help them sleep. This is unfortunate because frequent alcohol use can be detrimental to health and alcohol contributes to sleep disturbance. However, a large number of veterans showed a clear interest in behavioral sleep coaching and the use of sleep tracking devices to combat serious sleep deficits. Thus, the VA and other entities interested in providing veteran health services are uniquely poised to address this epidemic by designing a nationwide program such as sleep coaching to provide evidenced based non-medication treatment for insomnia. Such a program would help to identify and connect veterans with more comprehensive integrative well-being services.

References

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