



Identifying Behaviors that Influence Sleep Health and Increase Risk for Insomnia among Airmen in Technical Training



Rosemary Estevez Burns¹, Jordan Ellis¹, Xin-Qun Wang², Marc Patience¹, John Blue Star¹, Chase A. Aycock¹, Daniel G. Cassidy¹, Gerald W. Talcott²
¹Wilford Hall Ambulatory Surgical Center, Joint Base-San Antonio Lackland; ²Public Health Sciences Department, Center for Addiction and Prevention Research, University of Virginia

The views expressed are those of the authors and do not reflect the official views or policy of the Department of Defense or its components.

Introduction

The detriments of chronic insufficient sleep are well documented among military members. For instance, research supports the association of diminished mental and physical health with short sleep duration and non-restorative sleep. Additionally, insufficient sleep in a military sample, was associated with poor attention, delayed reaction time, diminished cognitive effort, and reduced moral reasoning, which are all instrumental for safe operational outcomes. Within the literature, extensive focus has been given to assessing this population's response to tertiary interventions, treating service members with insomnia and other sleep disorders. Primary and secondary prevention research appears more limited. A population-level approach with military members may generate significant economic and military readiness benefits. This study aimed to assess the current sleep health status (e.g., subjective satisfaction with sleep, adequate duration, sleep efficiency, and sustained alertness during waking hours) of a group of Airmen in technical training. Sleep is instrumental to overall health and performance in a military setting. Sleep influences academic and physical performance, ultimately shaping Airmen's future success in the military.

Methods

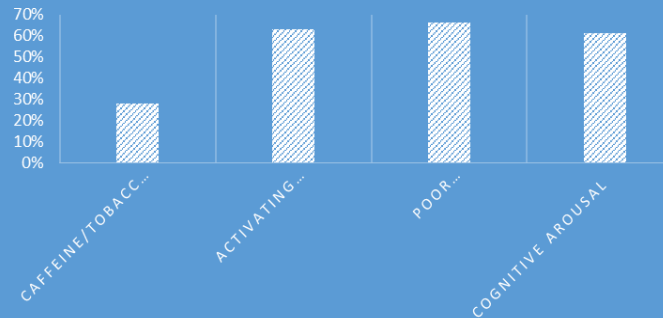
A sleep survey was administered to two groups of Airmen at an Air Force technical training Site: In-processing, i.e., Airmen who just arrived to begin technical training, (n=187), Age: $M = 20.83$ ($SD 3.26$), 82.55% Male; Out-processing, i.e., Airmen about to complete technical training, (n=302), Age $M = 20.7$ ($SD 3.09$), 85.81% Male. Airmen were administered the Self-Assessment of Sleep Survey (SASS-Y), PROMIS scales, and Sleep Hygiene Index.

Results

Subjective Sleep Experience



SLEEP-RELATED BEHAVIORS PROXIMAL TO BEDTIME



Results Continued

- Half of the sample reported less than 6.5hrs of sleep duration
- 17.5% of the sample reported poor quality sleep
- 30.5% trouble with consolidated sleep period
- 63% engage in wakefulness promoting activities prior to bedtime
- 28% intake substances that hinder sleep onset and sleep consolidation
- 61% have cognitive arousal/ruminations in bed

Discussion

- Findings suggested that Airmen are engaging in unhelpful sleep behaviors relatively early in their military career, possibly adversely impacting their risk for developing sleep disorders later in their career. These results will inform intervention development for a randomized control pilot study for Airmen in technical training aimed at enhancing motivation for making small behavioral changes to improve their sleep and mitigate risk for sleep disorders in the future.