Attitudes, Beliefs and Quality of Sleep Amongst Active Duty Soldiers and the Impact on Occupational Performance: A Mixed Methods Study

Chelsea Truax*, MSOT, OTR/L, CPT, US Army, SP Corps; Brandon Stanley*, MOT, OTR/L, CPT, US Army, SP Corps;
Enrique Smith-Forbes*, PhD, OTR/L, CHT, LTC, US Army, SP Corps; Yvette Woods*, PhD, OTR/L
*Army Baylor Doctor of Science in Occupational Therapy Program, San Antonio Military Medical Center, JBSA – Fort Sam Houston, TX, USA

Introduction

- As many as 19.9% of the military population experiences symptoms of insomnia and 41-75% of post-deployed military service members report sleep disruptions.[1]
- The Performance Triad (P3) was implemented in 2013 with a focus on sleep education and hygiene promoting optimal performance for tactical athletes (soldiers).[2]
- Sleep disturbances remain prevalent and the unique environment of the Active Duty (AD) population submits soldiers to potential vulnerabilities to obtaining sleep including: frequent overnight and shift work schedules, exposure to deployment stressors, complex mental operations, elevated stress levels and poor sleep environment. [3,4]
- Decreased sleep poses increased safety risks to personnel and equipment resulting in increased medical expenses, lost training days, damaged equipment and limited readiness. [5,6,7,8]
- Poor sleep has a relationship with increased BMI and dysfunctional beliefs as well as decreased physical fitness and emotional resilience. [5,6,7,8]
- Despite the plethora of research on the occurrence and impact of sleep disturbances amongst the AD population, no studies have evaluated the attitudes, beliefs and quality of sleep of AD soldiers and their perceived impact on occupational performance (functional independence in everyday activities).

Purpose

- **To understand the current attitudes, beliefs and quality of sleep among the active duty Army community and its relation to occupational performance to influence effective development of future occupational therapy intervention programs.**
- Additional aims:
  - Determine the current attitudes, beliefs and sleep quality of active duty soldiers
  - Explore the relationship between attitudes and beliefs about sleep, sleep quality and perceived impact on occupational performance
  - Examine the experiences of sleep within the active duty Army community

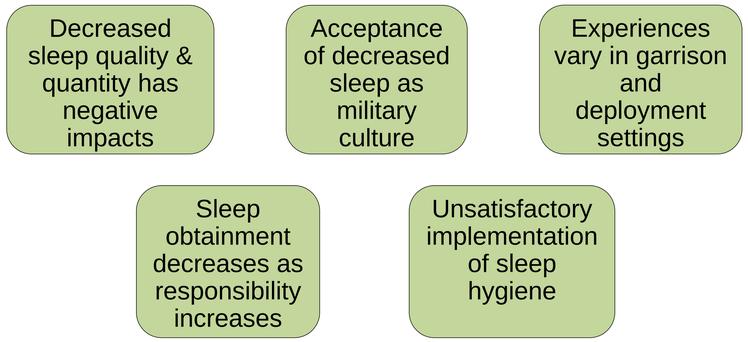
Methods

- This study utilized a triangulation convergent mixed methods cross-sectional design.
- Subject recruitment and enrollment was completed from JAN 2019 to MAR 2019.
- Convenience sampling was utilized to recruit participants from three professional military medical education institutions at Fort Sam Houston.
- In addition to demographic data, three self-reported measures were utilized. The measures were administered in the form of paper and pencil packet at one time point.
- To participate, individuals must be male or female, on AD, between the ages of 20-62. Individuals were excluded if they were not currently on AD and did not have at least two years' time in service.
- Demographic information included: sex, MOS/AOC, TIS, deployment history, use of alcohol, tobacco and/or caffeine, most recent APFT score, height and weight.
- Instruments used included: Pittsburgh Sleep Quality Index (PSQI), Dysfunctional Beliefs and Attitudes about Sleep Scale (DBAS-16) and Functional Outcomes of Sleep Questionnaire (FOSQ-10).
- Qualitative data was gathered through a one-time semi-structured interview occurring on the same day as quantitative data collection.

Results

Qualitative Results

- Emerging themes in preliminary analysis



Results continued

Quantitative Data

Total Participants	102
Gender	79 male/ 23 female
Occupation	11 officers/ 91 enlisted
School	8 BOLC/ 3 CCC/ 36 ALC/ 55 SLC
Marital Status	71 married/ 2 separated/ 15 divorced/ 14 single
History of Deployment	81 yes/ 21 no
Tobacco Use	25 yes/ 75 no /2 missing
Alcohol Use	77 yes/ 23 no/ 2 missing
Caffeine Use	87 yes/ 14 no/ 1 missing

Discussion

- Preliminary results demonstrate:
  - Large percentage of AD Soldiers may experience poor sleep.
  - Common sleep behaviors include tossing and turning throughout the night, difficulty staying asleep and waking up earlier than intended.
  - All 11 participants that were interviewed identified that the culture within the Army is accepting of decreased sleep quality and quantity despite their individual sleep behaviors.

Conclusion

- Completion of this study is needed for full data analysis and results.

Disclaimer

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