

# SLEEP IN COLLEGE STUDENTS: A MIXED METHODS STUDY

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## BACKGROUND

- College students have chronically restricted sleep patterns (Lund, Reider, Whiting, & Prichard, 2010; Hershner & Chervin 2014), experience more daytime sleepiness, and have more physical and mental health issues (Tsai & Li, 2004).
- Interventions that aim to change cognitive beliefs about sleep are associated with improved sleep quality (Morgan, 2012).
- Even though there are widely known methods to improve sleep, college students typically do not utilize them (Brown, Bublotz, Soper, 2002).
- More research is needed to investigate how beliefs and attitudes about sleep may be impacting sleep quality and sleep hygiene habits.

## STATEMENT OF PURPOSE

The aim of this study was to:

- Investigate how college students' sleep beliefs are associated with their quality of sleep.
- Understand how sleep beliefs affect behavior and how behavior in turn affects sleep quality.
- Learn more about how sleep quality is associated with other valued occupations in college students.

## RESEARCH DESIGN & METHODS

**Design:** Mixed methods approach in which interviews were conducted and analyzed according to grounded theory. Qualitative data was gathered through daily sleep diaries.

**Participants:** 4 pre-OT freshman undergraduates from DUC

**Data collection & procedures:** Two interviews, pre and post, were conducted to gather data on general sleep quality, daytime performance, and beliefs about sleep. Sleep diaries were also completed twice a day for two weeks to gather daily data on sleep patterns, daytime performance, and participants' perceptions of their sleep the previous night.

## PRELIMINARY RESULTS

### Emerging Themes

Participant interviews revealed themes regarding beliefs about sleep patterns, the impact of stress on sleep, and beliefs about the impact of nighttime sleep quality on daytime performance. **It is important to note that for each theme participants reported widely conflicting beliefs.** Furthermore participants identified idealized sleep patterns but behaviors reported in daily diaries were not consistent with these patterns.

### Idealized Beliefs vs. Actual Behavior

Ideal	Actual
Consistent sleep schedule will help me sleep better and perform better	Bed times ranged from 10:00 P.M. to 3:00 A.M. Wake up times range from 5:25 A.M. to 12:15 P.M.
If I start my homework earlier I could go to bed on time	Sleep is important but homework is prioritized over sleep
Environmental Barriers that impact sleep (temperature and noise) should be adjusted	Multiple participants reported environmental disturbances such as roommate noise and temperature during the night
Sleeping and napping are important	Only 28% of responses reported in engaging in napping and sleep was neglected for other occupations
Good night's sleep = good day. A bad night's sleep = a bad day	Only a good night's sleep = a good day. A bad night's sleep has no impact on daytime performance

### Participants Conflicting Sleep Beliefs

- Participant 1: "Sleep is very important to me...I would choose school over sleep because school dictates my life."
- Participant 2: "I sleep good....it's rare when I have very good sleep."
- Participant 3: "I'm not likely to give up sleep for other activities...as for homework I put that and work first, before my sleep."

## CONCLUSIONS

- Conflicting beliefs were a strong theme throughout the interviews leading researchers to believe that students do not have clearly defined beliefs pertaining to the occupation of sleep which may lead to poor sleep quality.
- The conflicting beliefs are associated with lack of follow through between reported sleep beliefs and actual daily behaviors.
- Participants connected good sleep with good daytime performance but did not connect bad sleep with adequate or bad daytime performance.
- Lack of awareness of the impact of a poor night's sleep may contribute to the gap between idealized and actual sleep hygiene behaviors.
- Opportunities for OT to develop sleep interventions (such as discussing sleep beliefs vs. actual behaviors) in order to provide clients with better sleep performance and occupational performance.

## IMPLICATIONS FOR PRACTICE

- Interventions that target clients' beliefs, such as Cognitive Behavioral Therapy (CBT), may align college student's beliefs and attitudes about sleep.
- Once cognitive beliefs and attitudes are addressed occupational therapists can work on developing and establishing healthy sleep routines.
- Occupational therapists should work on reducing environmental barriers impacting sleep to improve occupational performance.

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