

INTRODUCTION

- The average person spends 1/3 of his or her life sleeping (Curico et al., 2006).
- College students have poor quality and quantity of sleep resulting in ↓ performance in student related occupations, and academic performance.
- Minimal evidence examines the relationship between self-efficacy, sleep, and occupational performance in college students.
- OTs can develop interventions to improve sleep problems by modifying the environment and performance patterns of college students.

STATEMENT OF PURPOSE

- Measure sleep quality and patterns of sleep in undergraduate college students
- Explore the relationship between sleep, academic self-efficacy and student characteristics
 - First-generation college students
 - Students with disabilities
 - Student athletes

Review of Literature

SLEEP AS AN OCCUPATION

- Sleep is vital for all human life.
- ↓ sleep quality may result in behavioral, occupational, psychological, cognitive impairments and even premature death (Curico, et al., 2006).

SLEEP DISORDERS

- Common sleep disorders include insomnia, sleep apnea and narcolepsy (Buck, 2013).
- Narcolepsy affects 16% of college students (Gaultney, 2010).

COLLEGE STUDENTS

- University students often have trouble falling asleep and staying asleep for 7-10 hours a night (CDC, 2013).
- Athletes, first generation students & students with disabilities were shown to have a higher risk of experiencing sleep disturbances.

SLEEP AND OCCUPATIONAL THERAPY

- Rest and sleep are categorized as occupations in the Occupational Therapy Practice Framework (AOTA, 2014).
- Sleep is the only occupation that cannot be performed by another person (Pedretti, 2010).
- OTs implement interventions to address sleep insufficiency and sleep disorders (Leland et al., 2014).

METHODOLOGY

DESIGN

- Quantitative, exploratory, descriptive, and correlational.
- Used PSQI and original questionnaire.
- Areas measured: sleep duration, sleep disturbances, sleep latency, sleep medication, day dysfunctions, sleep efficiency, demographic information, self-efficacy.

PARTICIPANTS

- Undergraduate college students
- 18 – 25yo, no diagnosed sleep disorders

Sample Survey Questions

- During the past month, what time have you usually gone to bed at night?
- During the past month, how long (in minutes) has it usually taken you to fall asleep each night?
- During the past month, what time have you usually gotten up in the morning?
- During the past month, how many hours of actual sleep did you get at night?
- During the past month, how would you rate your sleep overall?
- During the past month, how often have you taken medicine (prescribed or "over the counter")?
- During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?
- During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?
- Do you have a bed partner or roommate?
- Do you have any of the listed medical conditions/diagnosis
- I have academic goals that I believe I will accomplish while I am in college.
- I believe that I have the ability to complete my Bachelor's Degree.
- I believe I will be able to earn the grades I desire in the remainder of my college courses.

Participant Demographic Data

Participant	N = 209	%
Gender, <i>n</i>		
Male	27	13
Female	182	87
Majors, <i>n</i>		
Health and Natural Sciences	163	78
First-generation students, <i>n</i>	77	34
Students with a disability, <i>n</i>	79	38
DUC Athletes, <i>n</i>	51	24

RECRUITMENT and DATA COLLECTION

- Flyers, emails, & face-to-face strategies
- 15 min survey on Survey Monkey

DATA ANALYSIS

- Quantitative Data:** Statistical Package Social Sciences Version 22.0 (SPSS V22.0) Pearson's *r* correlation coefficient
- Qualitative Data:** Open ended questions regarding sleep disturbances

RESULTS

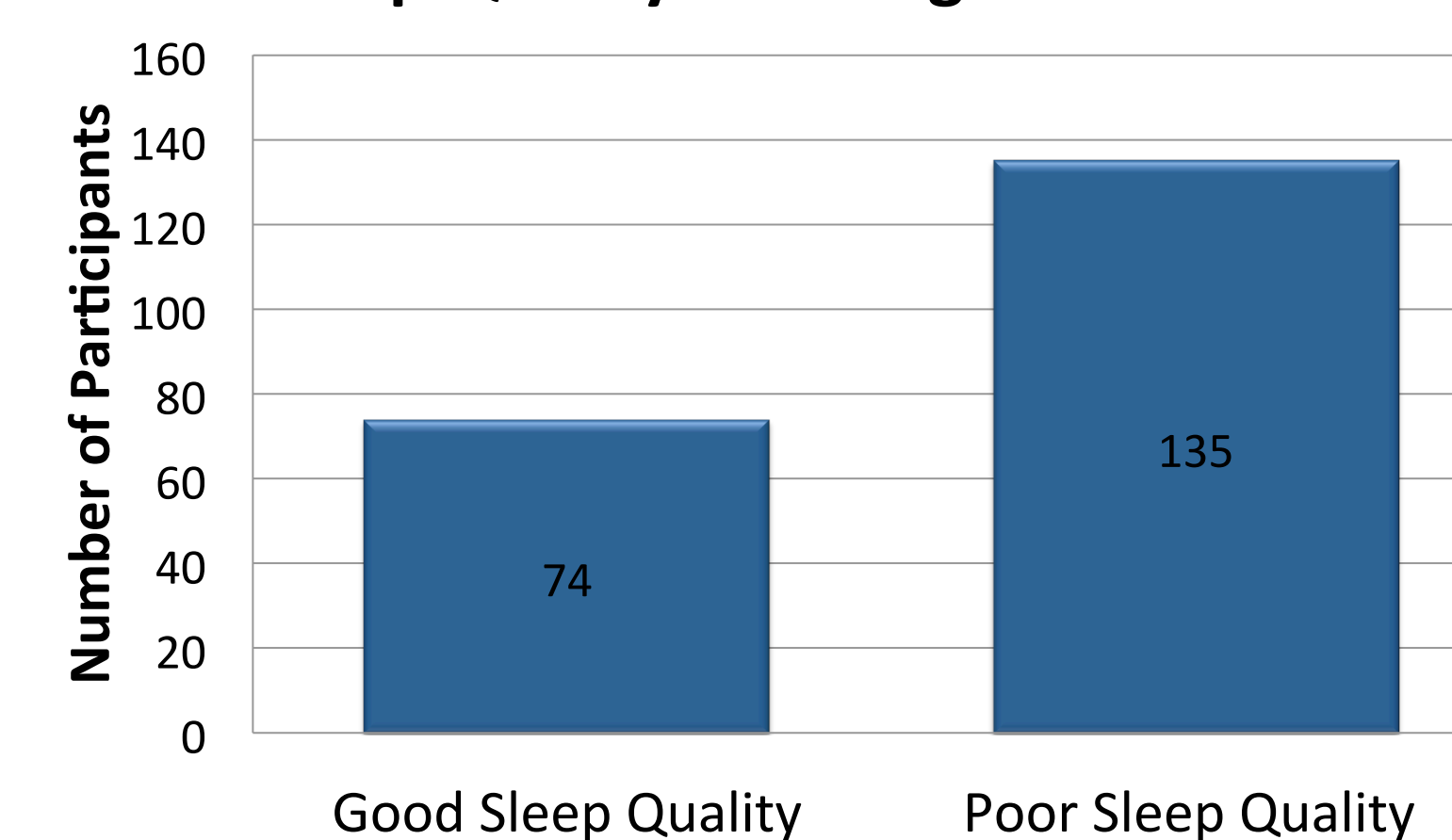
QUANTITATIVE DATA

- PSQI scores: 135 (64.6%) participants reported poor sleep quality and 74 (35.4%) participants reported good sleep quality.
- Weak positive correlation ($r = .33$) between PSQI scores and disability; sleep duration and GPA.
- Average number of sleep hours reported by participants is 6.68 hours.
- No significant correlations between PSQI scores, participant demographics or self-efficacy responses.

QUALITATIVE DATA

- Environmental factors such as lighting, temperature, and noise affect quality of sleep.
- Sleep behaviors: sleep talking, snoring, tossing and turning, and coughing.
- Impact of partners and roommates: noise, movement, and snoring.

Sleep Quality of College Students



DISCUSSION AND IMPLICATIONS

DISCUSSION

- Results support existing evidence suggesting college students are sleep deprived.
- Over ½ of participants reported sleep issues that could be addressed by an occupational therapist.

SUGGESTIONS FOR FUTURE RESEARCH

- Focus on key finding, which suggests that over ½ of undergraduate students have poor sleep quality and/or quantity.
- Conduct further studies with college students to determine specifically what is affecting their sleep quality and quantity and how it varies across time.

- Focus on specific student categories, ex: students with disabilities

SUGGESTIONS FOR OCCUPATIONAL THERAPY

- OTs can help improve the performance of sleep as an occupation.
- Interventions to improve sleep quality through environmental modifications, client education, and promotion of good sleeping habits.
- Create sleep promotion programs targeting young adults to address their unique biological and physical needs.

LIMITATIONS

- Responses based on self-report, weak correlations possibly due to small sub-category sample sizes.

REFERENCES

- American Occupational Therapy Association. (2014). Occupational therapy practice framework: domain and process (3rd ed.). *American Journal of Occupational Therapy*, 68(Suppl 1), S1-S48
- Buck, C. (2013). *2013 ICD-9-CM for physicians* (Professional ed.). St. Louis, Mo.: Elsevier/Saunders.
- Centers for Disease Control and Prevention. (2013, July 01). *How Much Sleep Do I Need?* Retrieved May 07, 2015, from http://www.cdc.gov/sleep/about_sleep/how_much_sleep.htm
- Curcio, G., Ferrara, M., & De Gennaro, L. (2006). Sleep loss, learning capacity and academic performance. *Sleep Medicine Reviews*, 10(5), 323-337. doi:<http://dx.doi.org.ezproxy.dominican.edu/10.1016/j.smrv.2005.11.001>
- Dewald, J. F., Meijer, A. M., Oort, F. J., Kerkhof, G. A., Bogels, S. M. (2010). The influence of sleep quality, sleep duration and sleepiness on school performance in children and adolescents: a meta-analytic review. *Sleep Medicine Reviews*, 14(2010) 179-189. doi:10.1016/j.smrv.2009.10.004
- Gaultney, J. (2010). The prevalence of sleep disorders in college students: impact on academic performance. *Journal Of American College Health*, 59(2), 91-97. doi:10.1080/07448481.2010.483708
- Johnson, J. (2013). Assessing Academic Risk of Student-Athletes: Applicability of the NCAA Graduation Risk Overview Model to GPA. *NACADA Journal*, 33(2), 76-89. doi:10.12930/NACADA-13-041
- Kranke, D., Jackson, S. E., Taylor, D. A., Anderson-Fye, E., & Floersch, J. (2013). College Student Disclosure of Non-Apparent Disabilities to Receive Classroom Accommodations. *Journal Of Postsecondary Education & Disability*, 26(1), 35-51.
- Leland, N. E., Marcione, N., Niemiec, S. S., Kelkar, K., & Fogelberg, D. (2014). What is occupational therapy's role in addressing sleep problems among older adults?. *OTJR: Occupation, Participation And Health*, 34(3), 141-149.