Sleeping patterns and perceived stress among pharmacy students and faculty

Grant Veath, Pharm.D. Candidate, Misty Gonzalez Pharm. D, BCPP

Southern Illinois University of Edwardsville School of Pharmacy

Southern Illinois University Edwardsville School of Pharmacy

BACKGROUND

- Many pharmacy students and faculty may sacrifice sleep in order to study for an exam, finish homework, work or due to family duties
- There are known physical and mental consequences of not getting enough sleep
- Since both sleep and stress can cause many harmful effects on the body, and may be interrelated, it is important to understand the impact that sleep has on perceived stress levels.

OBJECTIVES

- To assess if there was a correlation between the perceived stress level and quality of sleep
- To examine differences in sleep and stress between each professional year and faculty, overall academic performance with their sleep quality, comparison of perceived weekly performance and quality of sleep, and the main reasons why subjects had trouble sleeping

METHODS

Study Design

Quantitative , Descriptive, Survey

Study Population

Professional year one through three students and faculty at Southern Illinois University of Edwardsville School of Pharmacy

Study Measures: Dependent Variable

Quality of sleep reported by participants

- Quality of sleep was assessed using the Pittsburgh Sleep Quality Index
- Participants that scored ≥5 were considered to have poor quality of sleep
- A total score ≤4 indicated good quality of sleep

METHODS

Study Measures: Independent Variables

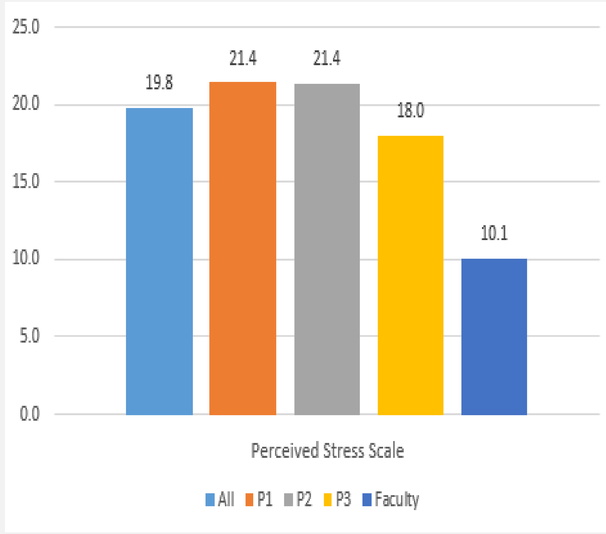
Professional year or faculty, perceived stress levels, grade point average, and weekly performance

- Stress levels were measured using the Perceived Stress Scale that ranged from 0-40 with a higher score indicating more stress

Data Analysis

The data was analyzed using descriptive statistics including mean, mode, and percentages with standard deviation

RESULTS



	PSQI	PSS	Total sleep (hours)
All	6.8 (±2.8)	19.8 (±7.3)	6.4 (±1.2)
P1	7.2 (±2.8)	21.4 (±6.6)	6.0 (±1.3)
P2	7.2 (±2.9)	21.4 (±6.8)	6.6 (±1.2)
P3	6.5 (±2.1)	18.0 (±6.2)	6.6 (±1.2)
Faculty	3.9 (±2.3)	10.1 (±6.2)	6.7 (±1.1)

RESULTS

Quality of sleep with average PSS score
Students with poor quality of sleep = 21.7 (n=146)
Students with good quality of sleep = 16.0 (n=35)
Everyone with poor quality of sleep = 21.6 (n=150)
Everyone with good quality of sleep = 13.9 (n=46)

Study population included
Overall = 196 subjects
Professional year 1 = 57
Professional year 2 = 80
Professional year 3 = 44
Faculty = 15

Perceived weekly performance
Optimal everyday of the week = 1% (n=2)
Optimal most days of the week = 36% (n=71)
Optimal half of the days of the week = 43% (n=84)
Optimal less than half of the days = 20% (n=39)

GPA range with quality of sleep
GPA 3.5-4.0/poor quality of sleep = 36% (n=52)
GPA 3.5-4.0/good quality of sleep = 46% (n=16)
GPA ≥3.0/poor quality of sleep = 84% (n=122)
GPA ≥3.0/good quality of sleep = 83% (n=29)

Time to sleep (minutes)
Everyone = 26.7 (±20.9)
P1 = 20.8 (±15.0)
P2 = 31.0 (±23.6)
P3 =30.0 (±21.5)
Faculty = 15.7 (±12.4)

RESULTS

Reasons for sleep disturbances
Waking up in the middle of the night or early morning = 69% (n=135)
Getting up to use the bathroom = 55% (n=107)
Feeling too hot = 53% (n=103)
Having bad dreams = 41% (n=80)
Feeling too cold = 39% (n=76)

Quality of sleep
Poor quality of sleep PSQI ≥5 = 77% (n=150)
Good quality of sleep PSQI ≤4 = 23% (n=46)
Students with poor quality of sleep = 81% (n=141)
Students with good quality of sleep = 19% (n=35)

CONCLUSION

- The study found that stress levels were higher in students that reported poor quality of sleep
- The results can help make students aware of how they need to improve their sleep hygiene because it can have positive effects on their stress levels and well-being.
- More similar studies are needed to compare the results at different pharmacy schools and see if the data is consistent