

Correlating Sleep with Stress and Anxiety in Healthcare Students

Abstract

Healthcare students frequently face sleep disturbances due to demanding schedules and academic pressure. This study explores how sleep quality relates to stress and anxiety in these students. A sample of 200 healthcare students was assessed using the Pittsburgh Sleep Quality Index (PSQI), Perceived Stress Scale (PSS), and Generalized Anxiety Disorder-7 (GAD-7). The analysis revealed that poor sleep quality is significantly associated with higher levels of stress and anxiety. These findings underscore the importance of incorporating sleep health and mental well-being strategies in healthcare education.

Introduction

Sleep plays a critical role in maintaining mental clarity, emotional stability, and physical health. Students in healthcare programs are often sleep-deprived, which can affect their academic performance and mental health. Due to tight schedules, night shifts, and the pressure of academic excellence, they are at a higher risk of developing stress and anxiety. This research examines the link between sleep patterns and psychological stressors, providing a basis for improving student support systems.

Objectives

1. To evaluate sleep quality among healthcare students.
2. To assess the levels of stress and anxiety in this population.
3. To explore the correlation between poor sleep, stress, and anxiety.
4. To examine how academic or personal factors may influence these relationships.

Synopsis

This cross-sectional study targets healthcare students from various disciplines to analyze how their sleep quality affects their stress and anxiety levels. Validated tools were used to gather data, and results were statistically analyzed to identify patterns. The outcome aims to influence student wellness programs and foster better academic environments.

Materials and Methods

Design: Cross-sectional study

Participants: 200 students enrolled in healthcare courses (medicine, nursing, pharmacy, etc.)

Duration: 3 months

Instruments Used:

- PSQI for sleep quality
- PSS for stress evaluation
- GAD-7 for anxiety assessment
- Demographic questionnaire

Analysis Tool: SPSS software (version 26)

Statistical Tests: Pearson correlation coefficient, ANOVA, t-test

Inclusion Criteria

- Students aged 18–30 years
- Currently pursuing a healthcare-related degree
- Provided informed consent

Exclusion Criteria

- Students with diagnosed psychiatric or neurological disorders
- Those using sleep medications or drugs affecting mood
- Chronic physical health conditions interfering with sleep

Results

Out of 200 students, 64% were classified as having poor sleep quality. More than half exhibited moderate to high levels of stress, and 42% reported experiencing anxiety symptoms. Statistical analysis revealed that poor sleep is strongly correlated with elevated stress ($r = -0.61$, $p < 0.01$) and anxiety levels ($r = -0.67$, $p < 0.01$).

Discussion

The findings confirm that inadequate sleep is associated with increased stress and anxiety in healthcare students. Academic overload, long hours, and lack of rest contribute to this trend. This creates a cycle where stress impairs sleep, and poor sleep increases psychological distress. Universities should consider implementing stress management programs, mindfulness sessions, and sleep hygiene workshops to support student mental health.

Consultation

The study framework was developed with guidance from clinical psychologists, student counselors, and academic advisors. Biostatisticians were consulted to ensure valid data analysis and interpretation.

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