

Academic Stress and Its Impact on Sleep Quality among Undergraduate Nursing Students in Jaipur: A Cross-Sectional Study

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Abstract

Introduction: Nursing students frequently experience academic stress as a result of their demanding coursework, clinical obligations, and performance standards. Stress has a detrimental effect on sleep quality, which can result in poor mental and physical health.

Methodology: A quantitative cross-sectional study was conducted among 100 undergraduate nursing students in selected colleges of Jaipur using a structured questionnaire including Academic Stress Scale and Pittsburgh Sleep Quality Index (PSQI). Convenience sampling technique was used. Data were analyzed using descriptive and inferential statistics

Results: According to the results, 64% of students had moderate stress, 22% experienced high stress, and 14% experienced low stress. Seventy percent of students had poor quality sleep. Academic stress and sleep quality were shown to be significantly correlated ($p < 0.05$).

Conclusion: Nursing students' sleep quality is greatly impacted by academic stress. Stress reduction and better sleep hygiene require interventions.

Keywords: Academic Stress, Sleep Quality, Nursing Students, PSQI, Mental Health

INTRODUCTION

Psychological distress brought on by scholastic demands that are greater than students' capacity for adaptation is known as academic stress. Due to clinical training and academic pressure, nursing students frequently experience higher levels of stress.¹

Academic achievement, emotional stability, and cognitive functioning are all impacted by sleep quality, which is a crucial aspect of

health. Fatigue, diminished focus, and decreased academic productivity are all consequences of poor sleep quality.²

Studies show that students' poor sleep quality is

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closely linked to academic stress because stress throws off circadian cycles and hormonal balance.³

Research conducted among nursing students shows that a majority experience moderate to high stress levels along with poor sleep quality, indicating a strong relationship between the two variables.⁴

Numerous psychological factors influence the quality of sleep. University students experience different types of stress and develop various strategies to cope with it. This study examines the mediating role of perceived and academic stress while evaluating the effects of technology use, social engagement, emotional regulation, and sleep quality among Jordanian undergraduate students.⁵

With major effects on physical development, emotional control, cognitive function, and quality of life, sleep is a vital part of health and wellbeing. A growing body of research indicates that longer sleep duration and better sleep quality in athletes are linked to better performance and competitive success, in addition to being an essential component of the recuperation and adaptation process in between exercise sessions. Better sleep may also lower an athlete's risk of disease and injury, improving health and maybe boosting performance through more training. Despite this, the majority of research has shown that athletes don't get the appropriate amount of sleep, endangering their health and performance.⁶

Different social media (SM) platforms are used by 63.7% of individuals worldwide. Users' health and well-being are negatively impacted by regular use of social media sites including Facebook, Instagram, Twitter, and YouTube Shorts/Reels. The purpose of this systematic literature review (SLR) is to ascertain the effects of using various social media platforms, such as Facebook, Instagram, Twitter, and YouTube Shorts or Reels, on mood, body image, sleep quality, and general health.⁷

Teenagers use the internet on several devices to communicate or obtain information. Teenagers' physical and mental well-being is influenced by sleep, which is a crucial aspect of their development. Teenagers' lack of sleep has become widespread over the past few decades, and the growing accessibility of technology is one of the contributing factors.⁸

Human health and quality of life are impacted by the

active process of sleep. Learning and memory consolidation depend on sleep. Academic success depends on getting enough sleep. Medical students frequently experience sleep difficulties as a result of their demanding schedules, stressful lives, and heavy workloads. Thus, the purpose of this study is to evaluate medical students' sleep quality.⁹

Regular academic activities might lead to exhaustion and poor sleep. The purpose of this study was to investigate the prevalence, risk factors, and detrimental consequences of academic fatigue on sleep and well-being in college students. Additionally, a quick exercise intervention was assessed.¹⁰

Background Sleep patterns and breakfast consumption are recognized to have an impact on cognitive function, but less is known about how they specifically affect health professional students' morning focus. The purpose of the study was to determine how health professional students' morning attention span was affected by their sleeping and breakfast routines.¹¹

Objectives

1. To assess the level of academic stress among nursing students
2. To assess sleep quality among nursing students
3. To determine the relationship between academic stress and sleep quality
4. To find association between selected demographic variables and stress

Hypothesis

- **H₀:** There is no significant relationship between academic stress and sleep quality
- **H₁:** There is a significant relationship between academic stress and sleep quality

Methodology

- **Research Approach:** Quantitative
- **Research Design:** Cross-sectional descriptive study
- **Setting:** Selected nursing colleges in Jaipur
- **Sample Size:** 100 undergraduate nursing students
- **Sampling Technique:** Convenience sampling

Inclusion Criteria

- B.Sc. Nursing students
- Willing to participate

Exclusion Criteria

- Students absent during data collection

Tool

- Section A: Demographic data
- Section B: Academic Stress Scale
- Section C: Pittsburgh Sleep Quality Index (PSQI)

Validity & Reliability

- Content validity by experts
- Reliability: Cronbach's alpha = 0.84

Data Collection Procedure

- Permission obtained from institutions
- Informed consent taken from participants
- Data collected through questionnaire

Ethical Consideration

- Confidentiality maintained
- Participation voluntary

Results

Table 1: Demographic Variables (n=100)

| Variable | Frequency | Percentage |
|------------------|-----------|------------|
| Age 18–22 yrs | 68 | 68% |
| Female | 74 | 74% |
| 1st year | 30 | 30% |
| Hostel residents | 60 | 60% |

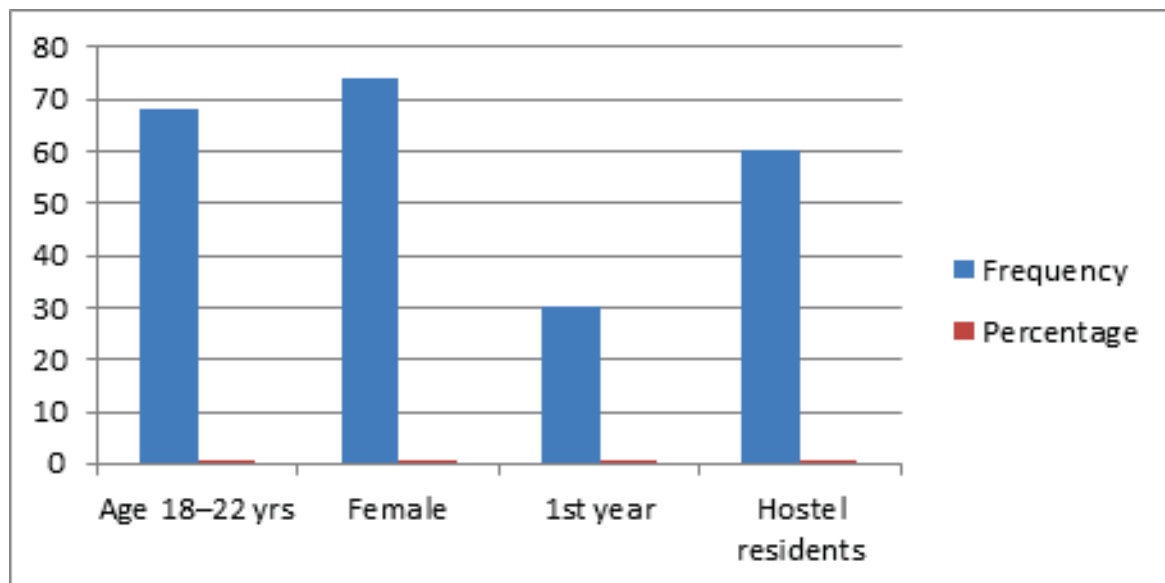


Figure 01: Demographic Variables

Table 2: Academic Stress Level

| Level | Frequency | Percentage |
|----------|-----------|------------|
| Low | 14 | 14% |
| Moderate | 64 | 64% |
| High | 22 | 22% |

Table 3: Sleep Quality

| Sleep Quality | Frequency | Percentage |
|---------------|-----------|------------|
| Good | 30 | 30% |
| Poor | 70 | 70% |

Table 4: Relationship between Stress and Sleep

| Stress Level | Good Sleep | Poor Sleep |
|--------------|------------|------------|
| Low | 10 | 4 |
| Moderate | 18 | 46 |
| High | 2 | 20 |

Chi-square test: Significant ($p < 0.05$)

Final Result Summary

- Majority (64%) had moderate stress
- 70% had poor sleep quality
- Higher stress → poorer sleep
- Significant relationship found between stress and sleep

Discussion

The study findings revealed that most nursing students experience moderate to high academic stress, consistent with previous studies. Academic pressure, clinical workload, and examinations contribute significantly to stress levels.

The study also showed that 70% of students had poor sleep quality, which is supported by research indicating that a large proportion of nursing students suffer from inadequate sleep.⁵

The significant relationship between academic stress and sleep quality confirms that increased stress leads to disturbed sleep patterns due to psychological and physiological mechanisms.

Conclusion

The study concludes that academic stress has a significant negative impact on sleep quality among undergraduate nursing students. Addressing stress is essential to improve student well-being and academic performance.

Recommendations

- Stress management programs for students

- Sleep hygiene education
- Counseling services in colleges
- Time management training
- Further research with larger sample

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CONFLICT OF INTEREST: None

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