



ANALYSIS OF FACTORS INFLUENCING STRESS LEVELS AMONG STUDENTS

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Abstract:

Student stress has become a growing concern in modern educational environments due to increasing academic expectations, competitive examinations, and lifestyle changes. Students often experience pressure from academic workload, exam anxiety, irregular sleep patterns, and limited physical activity, which can increase stress levels. This study analyzes the key factors affecting student stress using graphical and comparative data analysis techniques. The dataset includes variables such as exam anxiety frequency, academic workload intensity, sleep duration, and exercise frequency. The analysis shows that most students experience moderate stress, while some report high or low stress levels. Students with frequent exam anxiety and heavy academic workload tend to have higher stress levels. In addition, lack of proper sleep and limited exercise also contribute to increased stress. On the other hand, students who maintain healthy sleep habits and engage in regular physical activity generally experience lower stress. These findings highlight the importance of balanced academic schedules and healthy lifestyles to improve student well-being and academic performance.

Keywords: Student Stress, Exam Anxiety, Academic Workload, Sleep Patterns, Physical Activity, Student Well-Being,

1. Introduction

Stress is a psychological and physical response to challenging situations that individuals face in their daily lives. Among students, stress has become increasingly common due to academic demands, personal expectations, and social pressures. Educational institutions often require students to maintain high academic performance, complete assignments within strict deadlines, and prepare for examinations, which can create significant mental pressure (1).

In addition to academic responsibilities, students often struggle to balance extracurricular activities, maintain social relationships, and manage personal commitments. Juggling these multiple demands can create constant pressure, leading to increased stress and anxiety. When this stress continues for a long period, it can negatively affect both mental and physical health. Studies show that prolonged stress among students may lead to serious issues such as depression, sleep disturbances, and difficulty concentrating, which can ultimately impact their academic performance and overall well-being (2).

It's critical to comprehend the main reasons why students experience stress in order to create efficient support networks in educational settings. By identifying these factors, educators and administrators can implement strategies such as counseling services, stress-management workshops, and improved academic planning. This study focuses on analyzing the primary stress factors affecting students and highlights possible solutions to reduce their impact.

2. Literature review

Previous research has looked into the link between academic settings and student stress. Smith (2018) found that heavy academic workloads and exam pressure are the main causes of stress among university students. Competition and strict deadlines often increase anxiety levels.

Brown and Lee (2019) explored the connection between sleep patterns and mental health. Their findings showed that students getting less than six hours of sleep per night reported much higher stress levels than those who kept regular sleep hours.

Johnson *et al.* (2020) investigated the role of physical activity in stress management and found that students who engaged in regular exercise reported lower stress and anxiety levels.

Kumar and Sharma (2021) examined exam anxiety among college students and concluded that exam pressure is a leading psychological stress factor impacting student performance.

These studies confirm that both academic and lifestyle factors significantly influence stress levels among students.

3. Methodology

This study employs an analytical and descriptive research approach to evaluate the factors that influence stress levels among students.

3.1 data collection

The dataset comprises student responses about their:

- Stress level
- Exam anxiety frequency
- Academic workload
- Sleep hours
- Exercise frequency

The data was organized into qualitative groups to simplify analysis and interpretation.

3.2 data analysis techniques

The collected data was analyzed using visualization techniques to identify relationships between stress levels and various influencing factors. The analysis includes:

- Bar charts
- Comparative analysis

- Frequency distribution analysis

Visualization tools aid in recognizing patterns and correlations between stress levels and other variables.

4. Dataset Description

The dataset consists of student responses categorized into different groups.

Variables used in the study include:

4.1. Stress level

- High
- Medium
- Low

4.2. Exam anxiety frequency

- Always
- Often
- Sometimes
- Rarely
- Never

4.3. Academic workload

- Very High
- High
- Moderate
- Low
- Very Low

4.4. Sleep hours

- Less than 5 hours
- 5-7 hours
- 7-9 hours
- More than 9 hours

4.5. Exercise frequency

- Always
- Often
- Sometimes
- Rarely
- Never

5. Observations

5.1 Distribution of stress levels

Figure 1 shows the distribution of stress levels among students. The majority of students fall under the medium stress category, followed by students experiencing high stress, while fewer students report low stress levels.

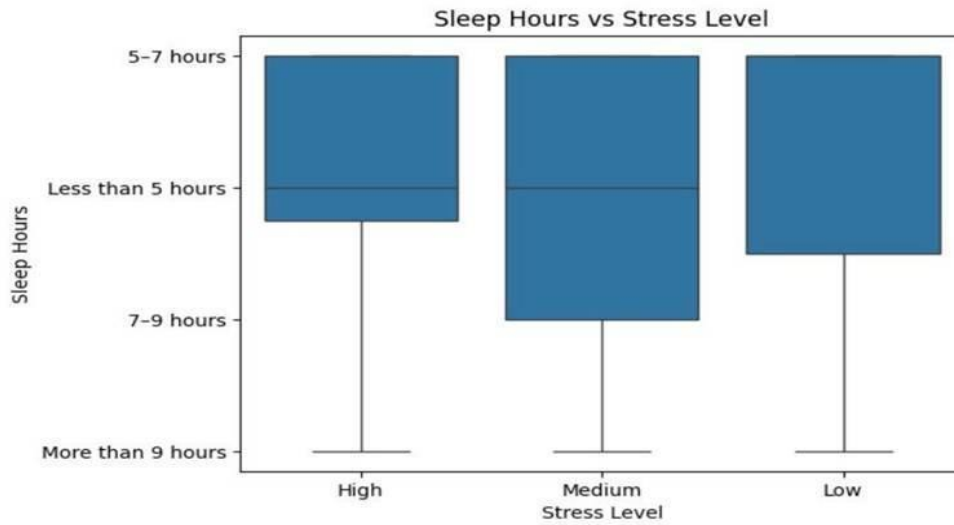


Figure 1: Distribution of stress levels among students

5.2 Exam anxiety vs stress level

Figure 2 illustrates the relationship between exam anxiety and stress levels. Students who experience exam anxiety sometimes or often are more likely to report medium or high stress levels. Students who rarely or never experience exam anxiety tend to have lower stress levels.

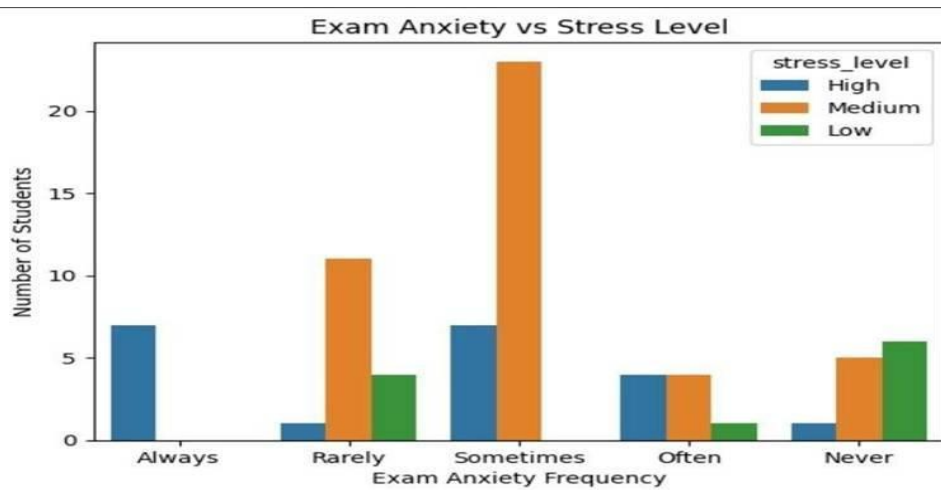


Figure 2: Relationship between exam anxiety and stress levels

5.3 Academic workload vs stress level

Figure 3 shows that students with moderate academic workload form the largest group. However, students with very high workload show higher stress levels compared to those with lower workload.

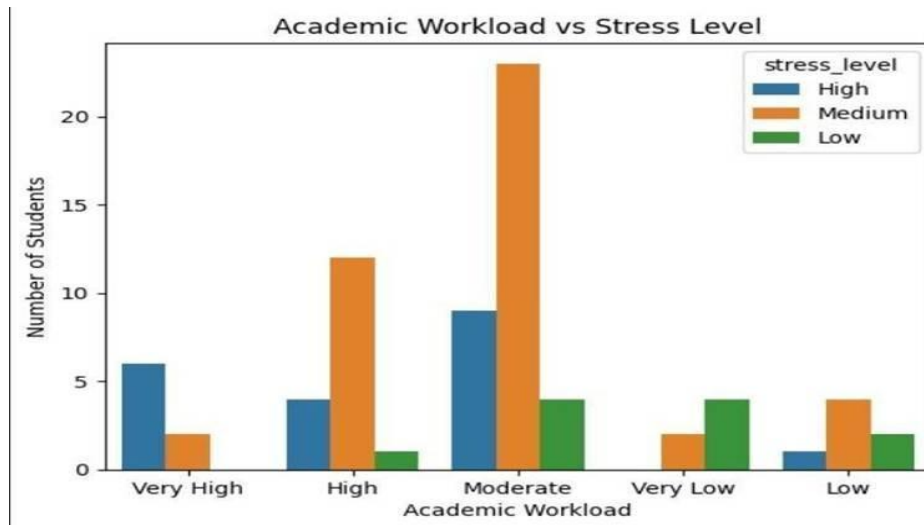


Figure 3: Students with moderate academic workload form the largest group

5.4 Sleep hours vs stress level

Figure 4 indicates that students who sleep less than five hours tend to have higher stress levels. Students who maintain 7–9 hours of sleep generally experience lower stress levels.

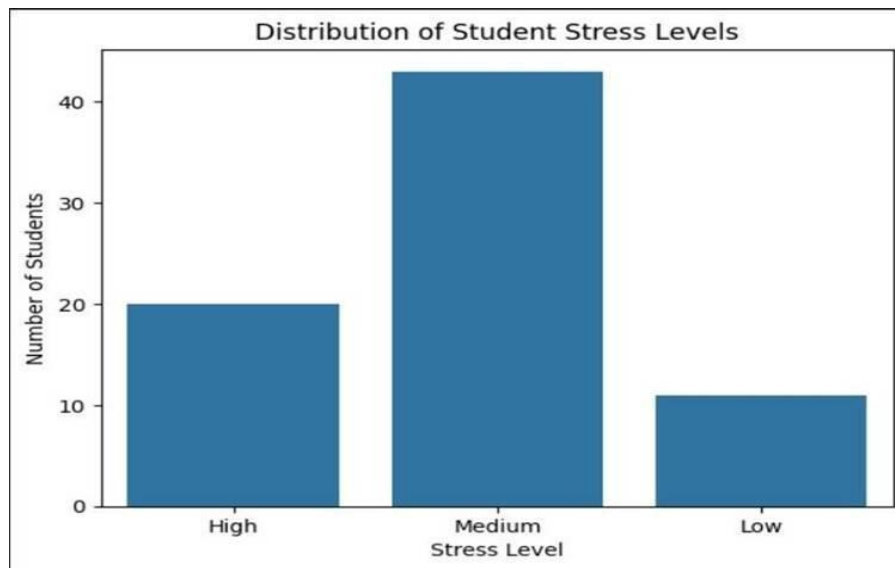


Figure 4: Students who sleep less than five hours tend to have higher stress levels

5.5 Exercise frequency vs stress level

Figure 5 shows that students who exercise regularly or sometimes tend to experience lower stress levels compared to students who rarely or never exercise.

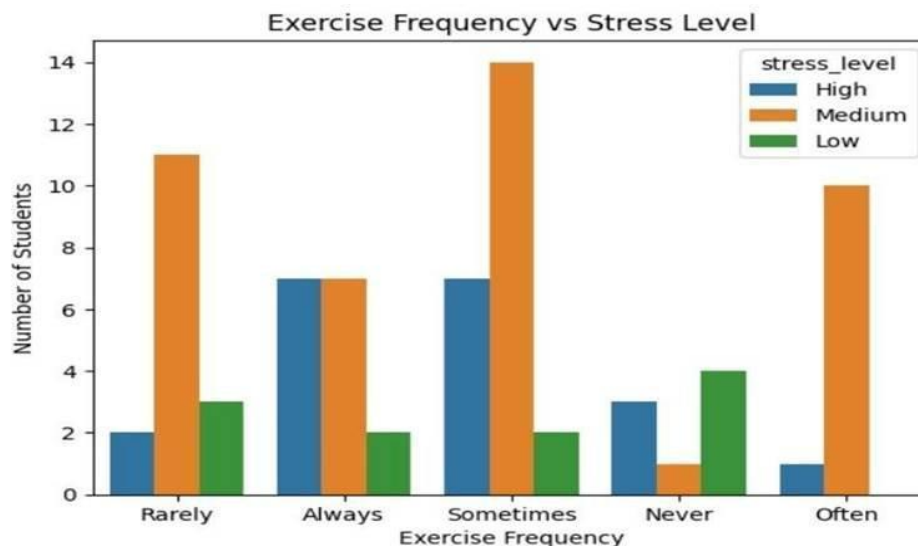


Figure 5: Exercise frequency vs stress level

6. Results and Discussion

The results indicate that academic workload and examination pressure are the most significant contributors to student stress. Many students reported feeling overwhelmed by multiple assignments, tight deadlines, and the need to maintain high grades. Time management difficulties also emerged as a major issue, as students often struggle to balance studies, personal life, and extracurricular activities.

Social expectations and parental pressure further increase the stress experienced by students. Many students feel obligated to meet the expectations of their families and peers, which adds additional psychological pressure. Furthermore, excessive use of social media and digital devices has been found to reduce productivity and increase anxiety levels among students (3).

The findings suggest that institutions should focus on providing academic support systems, promoting mental health awareness, and encouraging students to adopt effective stress-management techniques.

Conclusion

Student stress is a complex issue influenced by academic, social, and personal factors. The study highlights that academic workload, examination pressure, time management challenges, and social expectations are the primary causes of stress among students. These factors can negatively affect students' mental health, academic performance, and overall well-being if not properly addressed.

Educational institutions play an important role in reducing student stress by providing supportive learning environments and mental health resources. Implementing counseling services, organizing stress-management workshops, and encouraging balanced academic schedules can significantly help students manage stress effectively. By addressing these issues, institutions can improve both the academic success and the overall well-being of students.

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