

# How Lifestyle Patterns (Including Sleep Duration and Screen Time) Affect Academic Performance Among Teenagers

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## ABSTRACT

Sleep and lifestyle habits play an important role in students' cognitive functioning and academic performance. This study aims to examine the relationship between sleep duration and academic focus among students using a survey-based approach. Data were collected through an online questionnaire distributed to students, gathering information on sleep duration, daily routines, and self-reported levels of concentration and productivity. A total of **41 responses** were taken for analysis. The collected data were analyzed to identify trends and correlations between sleep patterns and academic focus. The findings of this study is . This research contributes to a better understanding of how lifestyle factors influence academic performance and may encourage students to adopt healthier sleep habits.

## INTRODUCTION

Academic performance in teenagers is influenced by various factors such as sleep patterns, academic pressure, bedtime habits, and daily routines. In recent years, the rapid increase in the use of digital devices has significantly changed students' lifestyles. As a result, increased consumption of social media and prolonged screen time have emerged as major factors that may affect the mental, physical, and academic performance of students.

Sleep is one of the most important factors affecting the overall well-being of adolescents. Adequate sleep is essential for concentration, memory, and effective learning. However, in the present generation, studying late at night has increasingly become a common practice among students. This trend highlights the need to raise awareness about how irregular sleep patterns and insufficient rest can negatively impact both health and academic results.

In addition to sleep and screen time, several other factors may influence academic performance among teenagers. Academic pressure, irregular daily routines, late bedtime habits, and limited physical activity can affect students' energy levels, motivation, and ability to concentrate. These factors often interact with sleep patterns, further influencing academic engagement and productivity.

Despite increasing awareness about the importance of healthy lifestyle habits, there is limited survey-based research that directly examines the relationship between lifestyle patterns and academic performance among teenagers. Many existing discussions focus on general effects without considering students' daily routines and self-reported academic experiences. Therefore, this study aims to explore how lifestyle factors such as sleep duration, bedtime habits, and screen time influence academic performance among teenagers through a questionnaire-based approach. Understanding these relationships may help raise awareness about the role of balanced lifestyle choices in improving students' academic focus and overall well-being.

## **Aim of the Study**

**The aim of this study is to examine the relationship between lifestyle patterns—particularly sleep duration, bedtime habits, and screen time—and academic performance among teenagers using a survey-based approach.**

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## **Research Question**

**How do lifestyle patterns such as sleep duration, bedtime habits, and screen time influence academic performance among teenagers?**

## HYPOTHESIS

### NULL HYPOTHESIS

There is no significant relationship between lifestyle factors—including sleep duration, sleep quality, bedtime habits, academic pressure, daily routine, and the use of digital devices—and the academic performance of teenagers.

Variations in academic outcomes among teenagers occur independently of these lifestyle factors and are not meaningfully influenced by differences in sleep patterns, routine structure, or digital media usage.

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### ALTERNATIVE HYPOTHESIS

Lifestyle factors such as sleep duration, sleep quality, bedtime habits, academic pressure, daily routine, and digital device usage have a significant influence on the academic performance of teenagers. Teenagers who maintain healthier sleep patterns, balanced daily routines, and controlled use of digital devices are more likely to demonstrate better concentration, learning

efficiency, and overall academic achievement, whereas irregular sleep, excessive academic stress, and high screen time may negatively affect academic performance.

## VARIABLES OF THE STUDY

### **Independent Variables**

The independent variables in this study are the lifestyle factors that are expected to influence academic performance. These include sleep duration, sleep quality, bedtime habits, academic pressure, daily routine, and the use of digital devices. Variations in these factors are studied to understand their effect on teenagers' learning and academic outcomes.

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### **Dependent Variable**

The dependent variable of this study is the academic performance of teenagers. Academic performance is considered in terms of self-reported grades, concentration levels, learning efficiency, and overall academic achievement as perceived by the respondents.

### **Controlled Variables**

The controlled variables in this study include factors that are kept constant to ensure fairness and accuracy in the results. These include the age group of the participants (teenagers), the

general educational level, the school-going status of the respondents, and the learning environment. Keeping these variables constant helps in isolating the effect of lifestyle factors on academic performance.

## METHODOLOGY

### Research Design

This study adopts a **descriptive, survey-based research design** to examine the relationship between lifestyle factors and academic performance among teenagers. The survey method was chosen as it is effective in collecting data related to personal habits, stress levels, and academic outcomes from a group of students.

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### Sample Selection

The sample size for the study consisted of **41 teenage students**. The participants were selected using **convenience sampling**, where students voluntarily responded to the survey. The study focused only on teenagers to ensure uniformity and relevance of the data.

### Research Tool

Data was collected using a **structured questionnaire designed through Google Forms**. The questionnaire included questions

related to sleep duration, sleep quality, screen time, academic stress, daily routine, and self-reported academic performance. The questions were framed in a clear and simple manner to ensure accurate responses.

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## **Data Collection Procedure**

The questionnaire was shared with students through online platforms. Participants were informed about the objective of the study, and confidentiality of responses was ensured. All responses were collected anonymously to encourage honest and unbiased answers.

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## **Method of Data Analysis**

The collected data from the 41 responses was analyzed using **basic statistical and graphical methods**. The data was organized and represented using **bar graphs and pie charts** to identify trends. The analysis focused on observing patterns between sleep adequacy, stress levels, screen time, and academic performance.

## RESULTS AND FINDINGS

The analysis of data collected from **41 teenage students** revealed a clear relationship between lifestyle factors and academic performance. The results showed that students who reported getting **adequate sleep** tended to experience **lower levels of academic stress** and **reduced screen time** compared to those with insufficient sleep.

It was observed that students with adequate sleep demonstrated **better concentration, improved focus, and higher self-reported academic performance**. In contrast, students who slept for fewer hours or had irregular sleep patterns reported higher stress levels, increased screen time, and comparatively lower academic performance.

The findings also indicated that **screen time and stress levels were interrelated with sleep habits**. Students who maintained healthier sleep routines generally spent less time on digital devices and reported feeling less mentally exhausted. This balanced lifestyle appeared to positively influence their academic outcomes.

Overall, the results support the alternative hypothesis that **lifestyle factors, particularly sleep duration and quality, play a significant role in determining academic performance among teenagers**

# CONCLUSION

This study concludes that lifestyle factors have a significant influence on the academic performance of teenagers. Based on the responses collected from 41 students, it was observed that teenagers who obtain adequate sleep tend to experience lower levels of academic stress and reduced screen time, which in turn contributes to better concentration and higher academic performance. The findings support the alternative hypothesis and highlight the importance of maintaining healthy sleep habits and a balanced daily routine for improved academic outcomes among teenagers.

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## LIMITATIONS OF THE STUDY

Despite providing useful insights, this study has certain limitations. The sample size of 41 students is relatively small and may not fully represent the entire teenage population. The study is based on self-reported data, which may be influenced by personal bias or inaccuracies in responses. Additionally, the use of convenience sampling and the limited time available for data collection restrict the generalization of the findings to a broader population.

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## SUGGESTIONS AND FUTURE SCOPE

Future research can be conducted with a larger and more diverse sample size to improve the reliability of the results. More advanced statistical methods may be used to study each lifestyle factor in greater detail. Further studies could also include additional variables such as physical activity, diet, and mental health to gain a more comprehensive understanding of how lifestyle choices affect academic performance. Schools and parents may use the findings of this study to encourage healthier sleep habits and balanced screen time among students.

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