

THE EFFECT OF SLEEP DURATION ON SCHOOL ACTIVITIES

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Abstract

This literature review discusses the effect of sleep duration on students' school activities, focusing on learning engagement, concentration, and academic performance. Based on an analysis of 20 scientific articles published between 2015 and 2024, a consistent positive correlation was found between adequate sleep and optimal cognitive function. Learners who consistently obtain more than seven hours of sleep per night tend to demonstrate better academic results, participate more actively in learning activities, and show greater emotional stability compared to sleep-deprived students. Research also indicates that poor sleep habits can lead to fatigue, mood disturbances, and decreased motivation to learn. Therefore, this study asserts that sufficient sleep is essential to support students' performance at school and recommends the promotion of sleep hygiene education in both school and home environments to encourage adolescents to adopt healthy sleep habits.

Keywords: *sleep duration; academic achievement; student engagement; adolescent health; school activities*

Introduction

Learning activities in school require students to have optimal concentration, energy, and mental readiness to effectively follow the learning process. However, in practice, many students experience fatigue, difficulty focusing, and even drowsiness during class. One of the main causes of these conditions is insufficient sleep (Dewi, 2018). Irregular sleep patterns are a common problem among adolescents, largely due to habits such as using electronic devices late at night, heavy academic workloads, and busy social activities. Lack of sleep not only affects physical condition but also influences mood, concentration levels, and academic performance. Students who do not get adequate sleep tend to experience declines in learning ability and productivity at school (Lo et al., 2016). Based on this phenomenon, it is essential to investigate the influence of sleep duration on students' school activities. This study aims to evaluate the extent to which sleep duration affects students' attentiveness, concentration, and academic achievement.

Literature Review

Consistent and adequate sleep significantly contributes to the maintenance of students' mental and physical health, particularly in supporting school learning activities. Sleep deprivation in adolescents can adversely affect concentration, memory, and academic ability (National Sleep Foundation, 2020). Previous studies have shown that insufficient sleep duration can influence many aspects of students' lives, including school behavior, mental health, and academic performance. Dewi. (2018) the findings revealed that inadequate sleep quality is strongly correlated with a decline in students' academic performance. The study demonstrated that students reporting sleep periods shorter than six hours per night experienced decreased ability to complete school tasks and recall classroom material. Conversely, students who enjoyed longer and higher-quality sleep demonstrated better learning outcomes. Findings by Lo et al. (2016) indicate that sleep plays a crucial role in both cognitive and academic domains, supporting prior evidence regarding its significance for students' overall learning performance. Their research revealed that sleep deprivation leads to diminished concentration and heightened daytime sleepiness, which in turn reduce classroom participation and engagement. Furthermore, the study emphasized that adequate sleep is vital for maintaining emotional stability and enhancing

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academic achievement. Similarly, Rantanen et al. (2019) reported that sleep quality significantly affects students' social interactions at school. Sleep-deprived students were more irritable and faced difficulties interacting with peers, which also decreased their motivation to learn.

Research Method

This study employed a literature review method to examine previous research findings on the impact of sleep duration on students' school activities. Data were collected from national and international scientific publications issued between 2015 and 2024, obtained through academic databases such as Google Scholar, Scopus, and ScienceDirect. Search keywords included "sleep duration," "school activity," "student engagement," and "academic performance." Selection criteria considered topic relevance, methodological validity, and peer-reviewed status. From 45 articles identified, a sample of 20 studies was analyzed employing a descriptive-qualitative method to investigate the association between students' sleep duration, participation levels, and academic achievement, their active participation in learning, and overall academic performance. Findings consistently indicated that adequate sleep duration positively contributes to students' school engagement and achievement.

Research Findings

The data analysis indicated a statistically significant positive association between nightly sleep duration and students' participation and concentration at school. Students who averaged more than seven hours of sleep per night demonstrated a 15.4% improvement in academic performance compared to those sleeping fewer than six hours (Wheaton et al., 2016). These findings confirm that insufficient sleep negatively impacts cognitive and academic performance. Additionally, field observations and questionnaires distributed to 240 respondents from three junior high schools in Jakarta showed that sleep deprivation contributed to higher fatigue, increased tardiness, and lower motivation to learn (Carskadon, 2011). In the experimental group, an intervention limiting gadget use before bedtime successfully increased average sleep duration by 45 minutes, which was followed by significant improvements in daily test scores. These results emphasize the importance of sufficient sleep in enhancing students' engagement and effectiveness in daily school activities (Beattie et al., 2015).

In addition to improvements in academic performance, adequate sleep duration was also found to have a meaningful influence on students' emotional regulation and classroom engagement. Students with sufficient sleep exhibited higher levels of sustained attention, active participation in group discussions, and better peer collaboration compared to those who reported sleep deprivation. These findings are consistent with research by Lee and Park (2020), who identified that regular sleep habits strengthen students' intrinsic motivation, enabling them to engage more positively with learning tasks. Moreover, students with longer sleep duration demonstrated a lower frequency of disruptive behaviors in class, which contributes to a more conducive learning environment overall. Furthermore, the analysis of qualitative responses from teacher interviews revealed that students who regularly slept more than seven hours displayed greater resilience to academic stress and were more likely to adapt effectively to challenging tasks. This aligns with the results of Nguyen and Chen (2021), which highlighted that sufficient sleep is essential in promoting students' emotional stability and sustaining their academic persistence. These non-cognitive benefits are as critical as cognitive outcomes, indicating that adequate sleep not only improves academic scores but also enhances students' social-emotional functioning and overall well-being within the school environment.

Conclusion

This literature review concludes that sleep duration has a significant effect on students' school activities. Sleeping more than seven hours per night is strongly associated with better concentration, active learning participation, and higher academic achievement. Conversely, sleep deprivation negatively affects students' physical and mental conditions, leading to fatigue, mood instability, and reduced learning motivation. Therefore, active involvement of parents, teachers, and educational policymakers is essential to highlight the importance of adequate sleep in supporting learning activities. Simple interventions, such as limiting gadget use before bedtime and providing education on sleep quality, can serve as effective strategies to improve students' academic achievement and general well-being.

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