E-ISSN: 2962-6110
P-ISSN: 2964-7843
JSRET
jsret.knpub.com
Journal of Scientific Research, Education, and Technology

The Relationship Between Sleep Quality and Emotion Regulation on Academic Performance of High School Students

Rizky Amelia Utomo, Amanda Pasca Rini, Andik Matules
Master of Professional Psychology, University 17 August 1945 Surabaya, Indonesia

ABSTRACT

This study aims to examine the relationship between sleep quality, emotion regulation, and academic performance among high school students. Learning is a vital process in developing students' skills, knowledge, and attitudes, with academic performance serving as a key indicator of success. High school students are in their adolescent phase, which is marked by physical, psychological, and social changes, as well as academic pressures that can affect their academic performance. One factor that may influence academic performance is sleep quality, which can impact concentration, memory, and mental health. On the other hand, effective emotion regulation can help students cope with academic stress and enhance their performance. This research was conducted to analyze whether sleep quality and emotion regulation influence the academic performance of high school students. The results showed no significant relationship between sleep quality and emotion regulation on students' academic performance, with a significance value of 0.151 ($p < 0.05$). This indicates that other factors such as family support, motivation, and learning strategies may play a more dominant role in influencing students' academic performance. This study suggests that future research should consider the dynamic interplay among these factors and adopt a more in-depth approach to explore other variables that may affect students' academic outcomes.

Keywords: *Sleep Quality, Emotion Regulation, Academic Performance*

Corresponding author
Name: Rizky Amelia Utomo
Email: rizkyameliautomo77@gmail.com

INTRODUCTION

Academic performance among high school students serves as a key indicator of success in the educational process. High school students, typically aged 13–18, experience complex physical, psychological, and social changes during adolescence. Marotz & Allen (2016) describe this stage as a transitional period prone to conflict and pressure, in which students begin to reject being treated as children while not yet fully prepared to take on adult responsibilities. Cognitively, adolescents demonstrate the development of critical thinking and problem-solving abilities (Kleibeuker, De Dreu & Crone, 2013). However, emotionally, they are still learning to manage self-confidence and emotional stability. If not addressed properly, emotional instability can negatively impact concentration, motivation, and ultimately, academic performance (Sari & Purwaningsih, 2018; Jauhar et al., 2022).

One factor that affects both emotions and learning performance is sleep quality. Adolescents ideally require 8–10 hours of sleep per day (Directorate General of Health Services, 2024), yet in reality, many students suffer from sleep deprivation due to digital activities such as using social media or completing assignments late into the night (Permata et al., 2018). The National Sleep Foundation (2020) states that sufficient sleep enhances focus, creativity, and learning abilities. Conversely, inadequate or poor-quality sleep reduces concentration, increases emotional fatigue, and lowers academic achievement (Susilohadi, 2017; Putri et al., 2021).

Additionally, students' ability to regulate emotions plays an important role. Rifai et al. (2020) define emotion regulation as an individual's capacity to manage emotions in various situations. Students who can regulate their emotions are better equipped to handle academic pressure and maintain healthy social relationships. According to Saputra (2017), well-managed negative emotions do not disrupt the learning process. Saragih & Valentina (2015) also found that emotion regulation contributes to students' resilience and persistence in achieving academic goals.

Field observations, such as those from interviews with the Vice Principal for Student Affairs at SMAN X, revealed a decline in students' academic performance over recent semesters. One identified cause is the habit of staying up late or "insomnia," which negatively affects students' concentration and memory during school hours.

Therefore, sleep quality and emotion regulation are two closely related internal factors that may influence students' academic performance. This study aims to analyze the extent to which these two factors impact the academic performance of high school students and to provide strategic recommendations to enhance learning effectiveness and students' overall well-being.

METHOD

The population refers to a group of individuals with specific qualifications and characteristics that have been defined (Nazir, 2003). According to Singarimbun & Effendi (1998), the population consists of the total number of analysis units whose characteristics are being estimated. In this study, the population includes all 648 students in grades X and XI at State High School X.

A sample is a subset of the population selected to participate in the research (Malhotra, 2010). Sugiyono (1997) defines a sample as a portion of the total population that shares certain characteristics, and participants are often referred to as subjects or respondents. The sample data in this study were collected based on specific criteria, which include students from grades X and XI. However, participation was voluntary. A total of 195 students participated in this study.

Demographic Data of Participants

No.	Participant Classification	Description	N	Percentage
1.	Gender	Female	154	78.97%
		Male	41	21.03%
2.	Age	15 years	84	43.08%
		16 years	87	44.62%
		17 years	24	12.31%
3.	Grade	X	159	81.54%
		XI	36	18.46%

RESEARCH RESULT

The researcher collected data by distributing an online questionnaire link at State High School X in Kalitidu, Bojonegoro, coordinated through the Vice Principal for Student Affairs (WAKA Kesiswaan) with the assistance of class advisors to ensure distribution among students. A total of 195 respondents met the requirements for the study.

First Hypothesis: "There is an effect of sleep quality and emotion regulation on the academic performance of high school students." The results of the hypothesis test showed an F value of 1.909 with a significance level of 0.151 ($p > 0.05$). This indicates that the first hypothesis is not accepted.

Table Results of the First Hypothesis Test

Model	F	p	Description
Sleep Quality and Emotion Regulation on Academic Performance	1.909	0.151	Hypothesis not accepted

Second Hypothesis: "There is an effect of sleep quality on the academic performance of high school students." The results of the hypothesis test showed a t value of -1.837 with a significance level of 0.68 ($p > 0.05$). This means the second hypothesis is rejected.

Table Results of the Second Hypothesis Test

Model	t	p	Description
Sleep Quality and Academic Performance	-1.837	0.68	Hypothesis rejected

Third Hypothesis: "There is an effect of emotion regulation on the academic performance of high school students." The results of the hypothesis test showed a t value of -0.725 with a significance level of 0.470 ($p > 0.05$). This indicates that the third hypothesis is rejected.

Table Results of the Third Hypothesis Test

Model	t	p	Description
Emotion Regulation and Academic Performance	-0.725	0.470	Hypothesis rejected

DISCUSSION

The Academic performance is an important indicator in determining a student's success in school. Many factors can influence it, including emotion regulation and sleep quality. High school students, being in an adolescent phase, are particularly vulnerable to conflicts, stress, and social problems, making it essential to examine whether emotion regulation abilities affect their academic performance. On the other hand, sleep quality also plays a crucial role, which in this study was measured using seven aspects of the PSQI scale, namely sleep quality, sleep latency, duration, efficiency, sleep disturbances, medication use, and daytime dysfunction.

Based on statistical analysis, a significance value of 0.156 ($p > 0.05$) was obtained, indicating no significant relationship between sleep quality, emotion regulation, and academic performance. These results do not align with several previous studies. For example, Utami et al. (2020) found that higher sleep quality was associated with better emotional stability, which in turn improved academic achievement. Setyowati, Yuliadi, & Karyanta (2022) also showed a positive relationship between sleep quality, emotional stability, and academic performance.

The study by Andayani et al. (2022) supports the notion that students with high emotional intelligence and good sleep quality tend to have better academic performance. This is consistent with the theory that sleep quality affects cognitive function, memory, and concentration. However, a different result was found by Mehta (2022), who suggested that negative emotions might motivate students to study harder, resulting in good academic performance despite emotional instability.

These differing results could be influenced by many other factors that may have a more dominant role in affecting students' academic performance, such as family support, motivation, school environment, learning strategies, and teaching quality. Each individual also has distinct characteristics and intellectual capacities when facing academic pressure. For example, even with poor sleep quality, a student may use that time to study intensively, which could influence the study results.

The research by Amelia, Harsa, & Siana (2022) further supports the idea that not all individuals show a consistent relationship between sleep quality and performance, as sleep needs vary based on personal conditions. Therefore, it can be concluded that the relationship between sleep quality, emotion regulation, and academic performance is complex and influenced by many other variables. Future research should consider the dynamics among these factors more thoroughly to gain a more comprehensive understanding.

CONCLUSION

Based on the research results on the relationship between sleep quality, emotion regulation, and academic performance among high school students, it can be concluded that there is no significant relationship between these two variables and the students' academic achievement. The statistical test results show a significance value of 0.151 ($p >$

0.05), indicating that the main hypothesis is not accepted. Sleep quality, when considered separately, also did not show a significant effect on students' academic performance, with a significance value of 0.68. Similarly, emotion regulation had a significance value of 0.470. These results suggest that, although theory indicates that sleep quality and emotion regulation play an important role in supporting cognitive function, concentration, and the ability to adapt to academic pressure, in the context of this study, their influence on students' learning outcomes was not statistically significant.

This discrepancy could be attributed to the possibility of other factors having a more dominant influence on students' academic performance, such as family support, learning motivation, learning strategies, the learning environment, and the quality of teaching at school. Additionally, the varying sleep needs and emotional capacity of each individual are important considerations in understanding the research findings. Therefore, the relationship between sleep quality, emotion regulation, and academic performance is complex and cannot be explained solely by these two variables. Future research is expected to adopt a more comprehensive approach, considering other factors, in order to gain a deeper understanding of the determinants of academic success among students.

REFERENCES

Achtziger, A., Gollwitzer, P. M., & Sheeran, P. (2015). Implementation intentions and shielding goal striving from unwanted thoughts and feelings. Journal of Personality and Social Psychology, 109(4), 593–610.

Alhakim, S., Rahman, F., & Nugroho, B. (2023). The impact of financial literacy and social media on compulsive buying behavior. Journal of Consumer Research, 45(2), 210–225.

Andayani, T., Susanti, R., & Nurmala, D. (2022). Pengaruh kualitas tidur dan kecerdasan emosi terhadap prestasi akademik. Jurnal Psikologi Pendidikan Indonesia, 11(1), 45–53.

Ardiansyah, R., & Budiani, I. (2021). Fear of Missing Out (FoMO) and its role in compulsive buying behavior among young consumers. Indonesian Journal of Behavioral Studies, 9(1), 77–89.

Aydin, G., Uray, N., & Eroglu, F. (2019). The impact of self-control on impulsive buying behavior. International Journal of Consumer Studies, 43(3), 301–315.

Dittmar, H. (2022). Understanding compulsive buying: The role of materialism and self-regulation. Journal of Economic Psychology, 58, 12–26.

Faridathalla, H. (2016). Paylater services and their impact on consumer buying behavior. Journal of Financial Technology and Commerce, 12(3), 189–205.

Fraenkel, J. R., & Wallen, N. E. (2009). How to design and evaluate research in education (7th ed.). McGraw-Hill.

Harahap, M. A., Lestari, D., & Sari, P. (2023). The influence of social media on online shopping addiction and impulsive spending. Journal of Digital Consumer Behavior, 11(2), 98–113.

Jauhar, F., Hanifah, N., & Rachmawati, A. (2022). Dampak ketidakstabilan emosi pada prestasi akademik siswa SMA. Jurnal Psikologi dan Pendidikan, 8(2), 56–64.
Koç, E., Tuncay, O., & Kocabaş, F. (2023). Low self-control and compulsive buying behavior: The mediating role of emotional regulation. Psychology & Marketing, 40(1), 55–72.
Kleibeuker, S. W., De Dreu, C. K. W., & Crone, E. A. (2013). The development of creative cognition across adolescence: Distinct trajectories for insight and divergent thinking. Developmental Psychology, 49(2), 161–170.
Leong, S. M. (2018). Social influence and compulsive buying behavior: Examining the role of FoMO. Asian Journal of Business Research, 10(1), 121–138.
Limetal, B. (2017). Digital consumerism and the FoMO effect: How technology shapes purchasing decisions. Journal of Emerging Market Trends, 7(3), 45–60.
Malhotra, N. K. (2010). Marketing research: An applied orientation (6th ed.). Pearson Education.
Marotz, L. R., & Allen, K. E. (2016). Developmental profiles: Pre-birth through adolescence (8th ed.). Cengage Learning.
Mehta, S. (2022). The paradox of negative emotions and student motivation. Journal of Educational Psychology, 92(1), 39–54.
Meier, A., & Gray, J. (2014). The psychological effects of social media on compulsive spending. Journal of Behavioral Finance, 15(2), 88–104.
Nazir, M. (2003). Metode penelitian. Ghalia Indonesia.
Permata, R., Aulia, N., & Rahmawati, L. (2018). Dampak penggunaan gadget terhadap kualitas tidur remaja. Jurnal Ilmu Kesehatan, 6(2), 22–30.
Putri, A., Sari, M., & Nugroho, D. (2021). Korelasi kualitas tidur terhadap kemampuan konsentrasi belajar siswa. Jurnal Kesehatan Masyarakat, 9(1), 34–42.
Rifai, H., Susanti, L., & Prasetyo, A. (2020). Regulasi emosi dan ketahanan akademik siswa SMA. Jurnal Psikologi Remaja, 7(2), 112–119.
Saragih, D., & Valentina, N. (2015). Regulasi emosi sebagai prediktor ketahanan akademik pada remaja. Jurnal Psikologi Pendidikan dan Konseling, 1(1), 45–52.
Saputra, W. N. E. (2017). Emosi negatif dan dampaknya terhadap motivasi belajar. Jurnal Ilmiah Psikologi Terapan, 5(2), 33–41.
Sari, D. (2021). The rise of compulsive buying behavior in Indonesia: The impact of digital payment systems. Indonesian Journal of Economic Studies, 15(2), 77–90.
Setyowati, Y., Yuliadi, A., & Karyanta, I. (2022). Hubungan kualitas tidur dan stabilitas emosi terhadap prestasi akademik. Jurnal Psikologi dan Pendidikan, 10(3), 123–132.
Singarimbun, M., & Effendi, S. (1998). Metode penelitian survei. LP3ES.
Sugiyono. (2008). Metode penelitian kuantitatif, kualitatif, dan R&D. Alfabeta.
Susilohadi, D. (2017). Pengaruh kurang tidur terhadap prestasi akademik siswa. Jurnal Ilmu Pendidikan, 8(1), 44–49.
Susanti, R., Nugraha, A., & Widodo, T. (2023). Financial literacy and self-control as predictors of compulsive buying behavior. Journal of Financial and Economic Research, 20(1), 55–70.

Utami, I. A., Rahmawati, L., & Syahputra, R. (2020). Hubungan kualitas tidur dengan kestabilan emosi siswa SMA. Jurnal Kesehatan Mental Remaja, 5(1), 15–21.