

The background of the entire cover is an abstract, high-energy image. It features a blurred figure of a person, likely a runner, in motion. The figure is overlaid with vibrant, streaky light trails in shades of teal, blue, and orange, creating a sense of speed and dynamic movement. The overall composition is energetic and modern.

INTERNATIONAL GRADUATE COLLOQUIUM

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SPORTS AND PHYSICAL EXERCISE ASSEMBLY OF KNOWLEDGE SHARING

COLLOQUIUM PROCEEDINGS

EXTENDED ABSTRACT

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EXAMINING GADGET ADDICTION AND SLEEP DISTURBANCES AMONG MALAYSIAN UNDERGRADUATES: FINDINGS FROM A CROSS-SECTIONAL STUDY

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I. INTRODUCTION

This study examines the relationship between electronic gadget addiction and sleep quality among university students, with a focus on UiTM Seremban. Studies such as [1] and [2] have linked excessive gadget use to poor sleep quality, yet regional data remains scarce. This research aims to identify students' sleep quality and gadget addiction levels and determine the relationship between these variables. Insights from the study will help address sleep disturbances caused by technological habits and guide interventions to improve student well-being.

II. METHODS

A descriptive research design was employed with 101 university students selected using stratified random sampling based on year of study, gender, field of study and age group. Data were gathered via a structured questionnaire featuring the Pittsburgh Sleep Quality Index [3] and a Modified Gadgets Addiction Rating Scale [4]. Descriptive and inferential statistics, including Chi-square tests and Spearman correlation, analyzed relationships between gadget addiction, sleep quality, and demographics.

III. RESULTS AND DISCUSSION

A. Sleep quality of students

Figure 1 reported the number of respondents based on the sleep quality. Most students ($n = 70$, 69.3%) reported poor sleep quality, with a mean score of 7.07 ± 2.82 , while 30.7% ($n = 31$) of students reported good sleep quality. Similar findings have been reported in Malaysia, where 70.6% of undergraduate students were found to suffer from poor sleep quality [5]. This suggests that sleep issues are widespread among Malaysian university students, likely due to academic stress, excessive gadget use, and irregular sleep schedules.

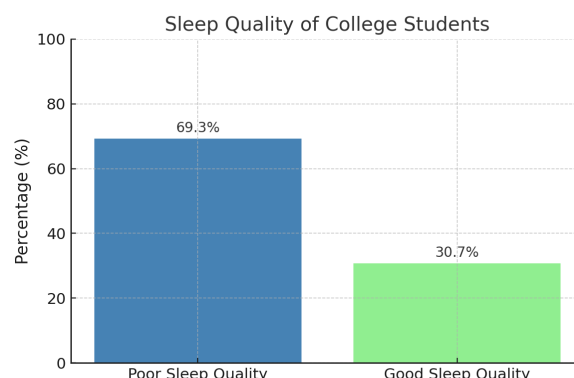


Fig. 1 Bar chart illustrating the percentage of participants with poor and good sleep quality.

B. Electronic gadget addictions among students

According to Figure 2, it is reported that moderate gadget addiction was most common ($n = 59$, 58.4%), with a mean score of 35.5, compared with low addiction ($n = 26$, 25.7%) and high addiction ($n = 16$, 15.8%). Female participants predominated (71.3%) general of the respondents and the median age was 22 years. Similar findings were found that 33.1% of university students exhibited digital addiction, with a mean score of 16.1 ± 5.58 [6]. While the prevalence of digital addiction is lower than this study, it still highlights a significant concern among university students. The difference in prevalence rates may be attributed to variations in assessment tools, cultural contexts, or sample characteristics.

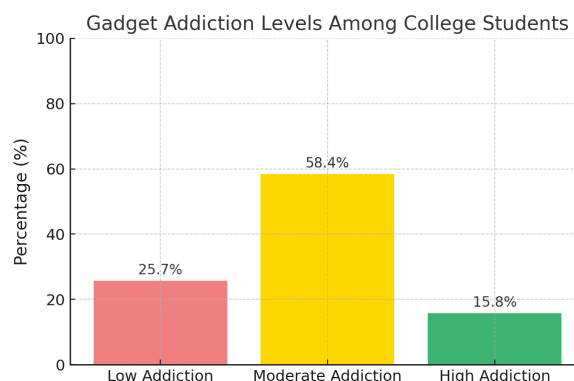


Fig. 2 Bar chart showing the percentage of gadget addiction among students

C. Relationship between sleep quality and electronic gadget addiction among students

performance among health care students: Cross-sectional study. *JMIR Medical Education*, 7(4), e25662. <https://doi.org/10.2196/25662>

Spearman's correlation ($p = 0.109$, $p = 0.279$) revealed a non-significant relationship between gadget addiction and sleep quality, suggesting inconclusive evidence of an association. A different finding which was conducted among 608 health care students in Saudi Arabia revealed that 53% had poor sleep quality, and 32% were addicted to smartphone use [7]. The study found that smartphone addiction was significantly associated with poor sleep quality, with an odds ratio of 1.8. Possible reasons for different findings include variations in sample characteristics, such as demographics, cultural contexts, or academic pressures, which can influence the relationship between gadget addiction and sleep quality. Additionally, differences in the measurement tools used to assess these variables may contribute to varying results. Lastly, study design factors, such as methodology, sample sizes, and statistical power, can significantly impact the detection and interpretation of associations.

IV. CONCLUSIONS

This study revealed prevalent poor sleep quality and moderate gadget addiction among college students, with no significant correlation between the variables. These findings highlight the need for further research to explore the nuanced effects of electronic gadget use on sleep.

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REFERENCES

- [1] Rathakrishnan, B., Singh, S. S. B., Kamaluddin, M. R., Yahaya, A., Nasir, M. A. M., Ibrahim, F., & Rahman, Z. A. (2021). Smartphone addiction and sleep quality on academic performance of university students: An exploratory research.
- [2] Zhu, W., Liu, J., Lou, H., Mu, F., & Li, B. (2024). Influence of smartphone addiction on sleep quality of college students: The regulatory effect of physical exercise behavior. *PLOS ONE*, 19(1), e0307162. <https://doi.org/10.1371/journal.pone.0307162>
- [3] Buysse, D. J., Reynolds, C. F., Monk, T. H., Berman, S. R., & Kupfer, D. J. (1989). The Pittsburgh Sleep Quality Index: A new instrument for psychiatric practice and research. *Psychiatry Research*, 28(2), 193–213. [https://doi.org/10.1016/0165-1781\(89\)90047-4](https://doi.org/10.1016/0165-1781(89)90047-4)
- [4] Abdul Hadi, A., Roslan, S. R., Aidid, E. M., Abdullah, N., & Musa, R. (2022). Development and validation of a new gadget addiction scale (Screen Dependency Scale) among pre-school children in Malaysia. *International Journal of Environmental Research and Public Health*, 19(24), 16916. <https://doi.org/10.3390/ijerph192416916>
- [5] Ong, S. C., Azman, N., & Ho, H. T. (2023). Factors associated with sleeping quality and behaviors among university students in Malaysia. *Sleep Medicine Research*, 14(1), 43-49. <https://doi.org/10.17241/smr.2022.01536>
- [6] Al-Mamun. (2024). Prevalence and factors associated with digital addiction among students taking university entrance tests: A GIS-based study. *BMC Psychiatry*, 24, 322. <https://doi.org/10.1186/s12888-024-05737-9>
- [7] Qanash, S., Al-Husayni, F., Falata, H., Halawani, O., Jahra, E., Murshed, B., Alhejaili, F., Ghabashi, A., & Alhashmi, H. (2021). Effect of electronic device addiction on sleep quality and academic