

THE LEVEL OF SLEEP QUALITY AMONG UiTM PERLIS STUDENTS DURING POST COVID-19 LOCKDOWN

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Abstract: *University students' lifestyles and sleep pattern have changed as a result of the new way of studying that has emerged since COVID-19. Sleep problems and sleep disorders severely impair academic success in university students. There is limited study looking on, level of sleep quality during post COVID-19. Therefore, the purpose of this study is to identify the level of sleep quality among UiTM Perlis student during post COVID-19 lockdown. A total of 437 respondents among UiTM Perlis were distributed through WhatsApp and Telegram applications to answer the questionnaire by Pittsburgh Sleep Quality Index (PSQI) via Google Form. The findings indicate that there are no significant differences in the level of sleep quality among students at UiTM Perlis from seven faculties ($p > 0.005$). Faculty of Computer Science and Mathematics had a higher mean global score (7.11 ± 3.60). Meanwhile, Faculty of Applied Science had a lower mean global score (6.01 ± 2.90). Overall, the mean global score for all students was (6.57 ± 2.85). According to the findings, none of the seven faculty members have good sleep quality during post COVID-19 lockdown. In conclusion, students at UiTM Perlis have lower levels of sleep quality than average. This can be the outcome of poor sleeping habits, such as an inconsistent sleep schedule.*

Keywords: *Sleep Quality, Sleep Pattern, University Students, COVID-19*

Introduction

Sleep is an important part of anyone's daily routine. Improvements in physical, cognitive, and psychological health have been linked to sleep restoration; Poor or disrupted sleep, on the other hand, can lead to cognitive and psychological issues, as well as a deterioration in overall physical health (Crivello et al., 2019). Sleep duration can be measured for a single sleep episode or over a 24-hour period. Sleep length ranges were labelled as suggested, suitable, or not recommended, based on the number of hours of sleep each day. The following are the suggested sleep times: Newborns need 14-17 hours of sleep, babies need 12-15 hours of sleep, toddlers need 11-14 hours of sleep, preschoolers need 10-13 hours of sleep, school-aged kids need 9-11 hours of sleep, and teenagers need 8-10 hours of sleep (Hirshkowitz et al., 2015).

According to Dowdell & Clayton., (2018), students who sleep text were more likely to report that their cell phone had an impact on their sleep and sleep quality. Sleep debt affects memory ability needed for learning new material, studying for exams, and test taking skills in college students (Kloss et al., 2015). As a results, over time, not getting enough sleep causes students to become drowsy, anxious, and often unable to concentrate the next day, as well as reports of impaired memory and physical performance (Dowdell & Clayton., 2018). Some students take afternoon or evening naps on a regular basis to keep themselves awake while studying at home at night and to compensate for chronic sleep deprivation, at the same time, late naps have been shown to disrupt night time sleep (Fukuda & Ishihara., 2002).

The COVID-19 pandemic has impacted students' lives in various ways, depending not only on their level and course of study, but also on where they are in their programmes. As the results, many governments have instructed institutions to discontinue face-to-face instruction for the majority of their students, requiring them to switch to online teaching and virtual education almost overnight (Daniel, 2020). To the benefit of all, all institutions of higher learning and schools had to be closed. During COVID-19, UiTM also issued an operating guideline (View of Adaptation of Online Training in UiTM during COVID-19 Pandemic: Experience of ILD UiTM, 2022). Previous study by Aliana et al., (2021) stated that the overall finding indicates that the level of sleep of UiTM Perlis students was slightly higher in the poor sleep category during COVID-19 lockdown. There is limited study looking on, level on sleep quality during post COVID-19. Therefore, the purpose of the study is to identify the level of sleep quality among students during post COVID-19.

Methodology

Respondent

A total 437 UiTM Perlis students participated in the survey. As mentioned in Table 1, there were 62 students from Faculty of Accounting, 62 students from Faculty of Agrotechnology and Plantation, 63 students from Faculty of Applied Science, 62 students of Faculty Architecture Planning and Surveying, 63 students of Faculty of Business Management, 62 students from Faculty of Computer Science and Mathematics and 63 students from Faculty of Sports Science participated in the study.

Procedures

The survey was conducted using an online platform, accessible through any device with internet connection. The Google form was used to collect the data for this survey. The link for the form was disseminated through institutional group via WhatsApp and Telegram applications. The complete confidentiality of the responses is assured. The completion of the questionnaire takes

estimates of 10 to 15 minutes. All research procedures concerning human subjects were accepted by the UiTM Research Ethic Committee.

Instrumentations

The main component of the questionnaire consists of two sections which are Section A and Section B. Section A consist of demographic survey of the respondents. Section B consists of 19 self-rated questions of sleep quality known as The Pittsburgh Sleep Quality Index (PSQI) (Buysse et al., 1989). The PSQI is a self-reported sleep quality measure and sleep disturbance indicator. The questions measure a broad variety of sleep quality indicators include assessments of sleep length and latency, as well as the occurrence and extent of common sleep related problems. These 19 questions were gathered into seven component scores, each weighted similarly on a 0-3 scale. The seven component scores were at that point summed to abdicate a worldwide PSQI score, which includes a run of >5 scores demonstrate more awful sleep quality.

Statistical Analysis

All data are presented as mean \pm standard deviation (mean \pm SD). All data obtain in this research will be analyzed using Statistical Package for the IBM SPSS v26. Meanwhile, the 19 self-rated about their sleep quality and the score will determine by global score mean and standard deviation. The hypothesis in this study was test using One-way Analysis of Variance (ANOVA) to indicate the rates of good sleep and poor sleep between seven faculties.

Result

The survey was completed by 437 students. The rates of good sleeper and poor sleeper based on global PSQI score. Poor sleep quality, which was indicated by a global PSQI score >5. The mean global score value for each faculty is as mentioned in Table 1. The average score for all students was 6.57 ± 2.85 . Faculty of Computer Science and Mathematics had a higher mean global score (7.11 ± 3.60), and Faculty of Applied Science had a lower mean global score (6.01 ± 2.90).

Table 1 Mean and Standard Deviation for Global Score of UiTM Perlis Student

	Mean	Std. Deviation
Faculty of Sports Science and Recreation	6.43	2.467
Faculty of Applied Science	6.03	2.874
Faculty of Computer Science and Mathematics	7.11	3.359
Faculty of Business Management	6.49	2.850
Faculty of Agrotech and Plantation	6.74	2.942
Faculty of Architecture Planning and Surveying	6.77	2.620
Faculty of Accounting	6.40	2.767
Total	6.57	2.849

Table 2: One-Way Analysis of Variance (ANOVA) for differences on level of sleep quality

ANOVA					
Global PSQI					
	Sum of Squares	df	Mean Squares	F	Sig.
Between Groups	44.309	6	7.385	0.909	0.488
Within Groups	3404.950	430	8.128		
Total	3539.259	436			

Table 2 shows One-Way Analysis of Variance (ANOVA) for differences on level of sleep quality. There were no significant differences in global mean value between each faculty. Post hoc comparisons using the Tukey HSD test indicated that the $p = 0.488$ ($p > 0.05$). Although the result showed no significant variance, Faculty of Computer Science and Mathematics had a higher mean global score ($M=7.11$, $SD=3.60$), while the Faculty of Applied Science had a super lower mean global score ($M=6.03$, $SD=2.90$).

Discussions

The results for sleep quality among UiTM Perlis students were initially discussed and summarized to the significance value that was collected. Although not statistically significant, the results showed that the Faculty of Computer Science and Mathematics has a higher value of poor sleep quality. This probably caused by psychological problems brought on by excessive computer and screen use. According to Thomée et al., (2007), Information and Communication Technology (ICT) use may influence psychological health and a high combined use of computers and mobile phones was linked to an increased risk of experiencing long-term stress and depression symptoms. Aucejo et al., (2020), also stated that students with poor sleep rumination of an exhausting everyday living activity, such as an assessment or chore. Sleep deprivation and poor sleep quality can be also related to fatigue, depressive mood disorders, and issues managing stress (Wolfson, 2010).

Given that it is one of UiTM Perlis's major faculties and has all the necessary labs and equipment to fulfil its course requirements, the results demonstrate that the Faculty of Applied Science has a lower global mean score. Besides, the other faculty need to go for travelling to complete its course requirements. According to Yang et al., (2021), jet lag and long-distance travel can impair travellers' sleep quality due to fatigue and changes in space and time zone; For instance, they should maintain personal sleep hygiene practises such as participating in outdoor activities, adjusting their sleep time, maintaining a bedtime routine, arranging appropriate bedroom environments, and bringing sleep aids/gear as needed while travelling. Greater distances travelled by plane had a greater effect on subjective ratings of jet lag, fatigue, and vigour than objectively measured sleep parameters (Thornton et al., 2017). Other sleep-enhancing strategies, such as a balanced travel schedule, relaxation techniques, and stimulus control therapy, have been recommended for travellers, in addition to sleep hygiene education (Yang et al., 2021).

In general, the prevalence of sleep difficulties is marginally higher. Undergraduates at UiTM Perlis commonly have sleep problems, which may be due to poor sleep schedule such as an abnormal sleep routine. According to Hershner & Chervin (2014), students who start their day early and late into the night do not get sufficient sleep, could be one factor that led to poor sleep. Students commonly use technology and other substances that shorten their sleep duration and quality, which leads to poor sleep hygiene.

Conclusion

To summarize, sleep is an important biological function of the body that plays a role in performance, cognition, learning, development, and mental and physical health. The goal of this study is to determine the level of sleep quality among UiTM Perlis students on post COVID-19 lockdown. Sleep quality does not differ significantly between faculties. The lack of effective sleep management may be the cause of the participant's lack of sleep quality. Sleep deprivation has been linked to mental health issues such as difficulties learning, paying attention, making decisions, and thinking that is complex, divergent, or creative.

In conclusion, students at UiTM Perlis have lower levels of sleep quality. Although the Faculty of Applied Science had a lower global mean score and the Faculty of Computer Science and Mathematics had a higher global mean score, the two means within the faculty scarcely varied from one another.

The outcomes of this research can assist us in comprehending the level of sleep quality among UiTM Perlis students, as well as other Malaysian communities, following the COVID-19 lockdown. Furthermore, this data can be used as a reference for related associations, health industries, educational institutions, and other fields.

References

- Aliana, N., Zuki, M., Azim, M., Azhan, N., Kamaruddin, H., Fikri, A., Kassim, M., Ahmad, M., Hafiz, A., & Bakar, A. (2021). Sleep Quality Among University Students During Covid-19 Lockdown. *International Journal of Academic Research in Progressive Education and Development*, 10(2), 2226–6348. <https://doi.org/10.6007/IJARPED/v10-i2/10151>
- Aucejo, Esteban M., et al. “The Impact of COVID-19 on Student Experiences and Expectations: Evidence from a Survey.” *Journal of Public Economics*, vol. 191, no. 104271, 27 Aug. 2020, p. 104271, www.sciencedirect.com/science/article/pii/S0047272720301353, 10.1016/j.jpubeco.2020.104271.
- Buysee, Daniel J., et al. “Pittsburgh Sleep Quality Index.” PsycTESTS Dataset, 1989, <https://doi.org/10.1037/t05178-000>. Accessed 17 Aug. 2021.
- Crivello, A., Barsocchi, P., Girolami, M., & Palumbo, F. (2019). The Meaning of Sleep Quality: A Survey of Available Technologies. *IEEE Access*, 7, 167374–167390. <https://doi.org/10.1109/access.2019.2953835>
- Dowdell, E. B., & Clayton, B. Q. (2018). Interrupted sleep: College students sleeping with technology. *Journal of American College Health*, 67(7), 640–646. <https://doi.org/10.1080/07448481.2018.1499655>
- Daniel, S. J. (2020). Education and the COVID-19 Pandemic. *PROSPECTS*, 49(1), 91–96. <https://doi.org/10.1007/s11125-020-09464-3>
- FUKUDA, K., & ISHIHARA, K. (2002). Routine evening naps and night-time sleep patterns in junior high and high school students. *Psychiatry and Clinical Neurosciences*, 56(3), 229–230. <https://doi.org/10.1046/j.1440-1819.2002.00986.x>
- Hirshkowitz, M., Whiton, K., Albert, S. M., Alessi, C., Bruni, O., DonCarlos, L., Hazen, N., Herman, J., Katz, E. S., Kheirandish-Gozal, L., Neubauer, D. N., O'Donnell, A. E., Ohayon, M., Peever, J., Rawding, R., Sachdeva, R. C., Setters, B., Vitiello, M. V., Ware, J. C., & Adams Hillard, P. J. (2015). National Sleep Foundation's sleep time duration recommendations: methodology and results summary. *Sleep Health*, 1(1), 40–43. <https://doi.org/10.1016/j.sleh.2014.12.010>
- Hershner, S., & Chervin, R. (2014). Causes and consequences of sleepiness among college students. *Nature and Science of Sleep*, 6, 73–84. <https://doi.org/10.2147/nss.s62907>
- Kloss, J. D., Nash, C. O., Walsh, C. M., Culnan, E., Horsey, S., & Sexton-Radek, K. (2015). A “Sleep 101” Program for College Students Improves Sleep Hygiene Knowledge and Reduces Maladaptive Beliefs about Sleep. *Behavioral Medicine*, 42(1), 48–56. <https://doi.org/10.1080/08964289.2014.969186>
- (PDF) *The Impact of Movement Control Order (MCO) during Pandemic COVID-19 on Local Air Quality in an Urban Area of Klang Valley, Malaysia*. (n.d.).
- ResearchGate. https://www.researchgate.net/publication/341486397_The_Impact_of_Movement_Control_Order_MCO_during_Pandemic_COVID-

19_on_Local_Air_Quality_in_an_Urban_Area_of_Klang_Valley_Malaysia

- Thomé, Sara, et al. "Prevalence of Perceived Stress, Symptoms of Depression and Sleep Disturbances in Relation to Information and Communication Technology (ICT) Use among Young Adults – an Explorative Prospective Study." *Computers in Human Behavior*, vol. 23, no. 3, May 2007, pp. 1300– 1321, <https://doi.org/10.1016/j.chb.2004.12.007>.
- Thornton, Heidi R., et al. "Impact of Short- Compared to Long-Haul International Travel on the Sleep and Wellbeing of National Wheelchair Basketball Athletes." *Journal of Sports Sciences*, vol. 36, no. 13, 3 Nov. 2017, pp. 1476– 1484, <https://doi.org/10.1080/02640414.2017.1398883>.
- View of Adaptation of Online Training in UiTM During COVID-19 Pandemic: Experience of ILD UiTM.* (2022). Mohe.gov.my. <https://myjms.mohe.gov.my/index.php/ABRIJ/article/view/13208/7376>
- Wolfson, Amy R. "Adolescents and Emerging Adults' Sleep Patterns: New Developments." *Journal of Adolescent Health*, vol. 46, no. 2, Feb. 2010, pp. 97–99, [10.1016/j.jadohealth.2009.11.210](https://doi.org/10.1016/j.jadohealth.2009.11.210). Accessed 5 Mar. 2019.
- Yang, X., Chen, X., Xiao, X., Xi, H., & Liu, S. (2021). College Students' Willingness to Separate Municipal Waste and Its Influencing Factors: A Case Study in Chongqing, China. *Sustainability*, 13(22), 12914. <https://doi.org/10.3390/su132212914>