

Manuscript received January 24, 2024; revised January 30, 2024; accepted February 20, 2024; date of publication February 29, 2024

Digital Object Identifier (DOI): <https://doi.org/10.35882/ijahst.v4i1.312>

Copyright © 2024 by the authors. This work is an open-access article and licensed under a Creative Commons Attribution-ShareAlike 4.0 International License ([CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/))

How to cite: Selviana, Maulida Nurfazriah Oktaviana, and Firdawsy Nuzula, "Exploring the Impact of TikTok and Social Media Addiction on Bedtime Procrastination Among High School Students", International Journal of Advanced Health Science and Technology, vol. 4, no. 1, pp. 32-35, February, 2024

Exploring the Impact of TikTok and Social Media Addiction on Bedtime Procrastination Among High School Students

Selviana, Maulida Nurfazriah Oktaviana, and Firdawsy Nuzula 

Department of Nursing, College of Health Sciences Rustida Banyuwangi, Banyuwangi, Indonesia

Corresponding author: Maulida Nurfazriah Oktaviana (e-mail: lida.nurfazriah@gmail.com)

ABSTRACT Sleep is crucial for the body because it can improve the immune system and help teenagers concentrate at school. Meanwhile, each person's average sleep time is different. The standard sleep time for teenagers is 8 to 9 hours at night. The aspect that causes bedtime procrastination is self-restraint. Poor self-control can make a person's desire to sleep on time-inconsistent or unfulfilled. This research aims to analyze the relationship between TikTok and social media addiction among students at SMA. The population in this study was 83 and used random sampling techniques with questionnaire research instruments. The results of statistical tests using chi-square showed a significant value, namely $p\text{-value } 0.007 > \alpha 0.05$, so there is a relationship between addiction to social media TikTok and bedtime procrastination in students at SMA X. It is hoped that this research can make students understand better the pros and cons of delaying bedtime. There needs to be increased health promotion counseling regarding the impact of excessive addiction to the social media TikTok, and schools and parents can set rules or limits on gadget use. In future researchers, it is expected that they can add related variables that influence addiction to social media TikTok and reduce bedtime procrastination (delayed sleep time).

INDEX TERMS TikTok social media addiction, Bedtime Procrastination

I. INTRODUCTION

Sleep is crucial for the body because it can boost the immune system and help teenagers concentrate at school [1]. The average sleep time for each person is different; adolescent sleep time usually is 8 to 9 hours at night [2]. Teenagers and adults now enjoy using TikTok because social media is entertaining when bored [3]. However, currently, most teenagers prefer to delay their bedtime because they access social media TikTok [4].

Delayed bedtime is an individual's sleep delay due to reasons or causes [4]. It is called bedtime delay (bedtime procrastination) if the sleep time is less than usual, 8 hours at night, and only sleeps with 4-5 hours of sleep[5]. Delaying bedtime for teenagers is one of the triggers due to the use of social media TikTok, which is increasing daily; social media TikTok is currently the most popular among teenagers [6]. Based on information from We Are Social and Hootsuite in January 2019, there are ≥ 3.5 billion people around the world using social media in their daily lives [6]. All parts of the world, including Indonesia, have now reached 100 million+ TikTok social media users. Individual social media users in East Java in 2021 will reach 32,128 of the total population.

Meanwhile, in Banyuwangi, social media users in 2021 will reach 1,718+ users. The aspect that causes bedtime procrastination is self-restraint. Poor self-control can result in a person's desire to sleep on time-inconsistent or unfulfilled [4],[7]. Meanwhile, users use social media from various devices for more than 4 hours daily [8].It was not being able to control or control oneself to reduce the excessive use of social media [9].

Addiction to social media is when someone is unable to control the use of social media continuously or excessively, resulting in psychological and social problems [10]. One of the efforts needed to help prevent and reduce addiction to social media TikTok is to have self-control for each teenager[11]. A student must be able to utilize technological developments wisely, especially in using social media TikTok, and set a good sleep time [8]. Set a time limit for TikTok playing time. Warn yourself by setting the rules so you can only play 1 hour a day or 7 hours a week. Commitment and discipline are the keys to success [12]. One of the efforts needed to help prevent and reduce addiction to social media TikTok is to have self-control in each individual teenager and as a student they must be able to utilize technological developments wisely, especially in the

use of social media TikTok and be able to set a good sleep time. [12]. So, based on this information, researchers were encouraged to research with the title "The Relationship between TikTok Social Media Addiction and Bedtime Procrastination in Students at SMAN 1 Glenmore".

II. METHOD

The method is quantitative analytical survey research with a cross-sectional approach [13]. Focuses on measuring the dependent (Bedtime Procrastination) and independent variables (social media TikTok). The sampling method used in this research was random sampling based on inclusion and exclusion criteria. Inclusion criteria are female students who are active on the social media TikTok, female students aged 16 - 18 years, female students who are willing to act as respondents. The exclusive criteria were students who were sick or absent from school, students who did not complete the questionnaire completely, with a total of 83 respondents. The data obtained was collected using a questionnaire instrument. Research Instruments determined two types of questionnaire instruments consisting of TikTok social media addiction and bedtime procrastination[14]. The assessment technique for the TikTok social media addiction questionnaire is 20 items, the Bedtime Procrastination questionnaire is 15 items. The validity of the questionnaire has been tested with a value of ≥ 0.25 . The results of the reliability test show that the TikTok social media addiction scale is 0.916 and the bedtime procrastination style scale is 0.949[15]. The data analysis used by researchers is the chi-square test, then the test is carried out using SPSS to determine the relationship between two variables. The research results obtained a p value of 0.007, meaning that there is a relevant relationship between addiction to social media TikTok and bedtime procrastination. Where the research is carried out after obtaining permission or approval from the ethics commission No: 143/03/KEPK-STIKESBWI/VIII/2023.

III. RESULTS

A. TIKTOK SOCIAL MEDIA ADDICTION

Tiktok social media is a very interactive media, it can be seen the number of users **TABEL 1**

TABLE 1
Frequency Distribution of TikTok Social Media Addiction

TikTok Social Media Addiction	Frequency	Percentage (%)
Tall	17	20,5%
Currently	58	69,9%
Low	8	9,6 %
Total	83	100%

TABLE 1. above shows that most teenagers are addicted to the social media TikTok, with a moderate level of 58

respondents (69.9%), TikTok social media addiction is high as many as 17 responden (20.5%)

B. BEDTIME PROCRASTINATION

Respondents' tendency to procrastinate on bedtime even though one knows that sleep is important, as **TABLE 2**.

TABLE 2
Frequency Distribution of Bedtime Procrastination

Bedtime Procrastination	Frequency	Percentage (%)
Tall	2	2,4 %
Currently	76	91,6 %
Low	5	6,0 %
Total	83	100%

TABLE 2. above shows that adolescents at SMA Negeri 1 Glenmore experience bedtime procrastination in as many as 76 respondents (91.6%) with a moderate level.

C. CROSS TABULATION METHOD

The results of cross-tabulation between the variables of TikTok media use and the tendency to sleep time in 83 respondents can be seen in **TABLE 3**.

TABLE 3
Frequency Distribution of TikTok Social Media Addiction and Bedtime Procrastination

TikTok Social Media Addiction	Bedtime Procrastination						Total	
	Low		Currently		Tall		F	%
	F	%	F	%	F	%		
Low	2	25	6	75,0	0	0,0	8	100
Currently	3	5,2	55	94,8	0	0,0	58	100
Tall	0	0,0	15	88,2	2	11,8	17	100
Total	5	6,0	76	91,6	2	2,4	83	100

TABLE 3 shows the results of the cross-tabulation of the relationship between social media addiction, TikTok, and bedtime procrastination; it is known that 83 respondents are included in the moderate category of social media addiction, as many as 55 respondents with a percentage (94.8%) and bedtime procrastination.

D. HYPOTHESIS TESTING

Prosedur yang digunakan untuk menganalisis hubungan antara penggunaan media TikTok dan kecenderungan tidur menggunakan uji statistik dari 83 responden dapat dilihat pada tabel 4 di bawah ini.

TABLE 4
Chi-Square Test Relationship between TikTok Social Media Addiction and Bedtime Procrastination

	<i>Chi-Square Value</i>		<i>df</i>	<i>Asymptotic significance (2-sided)</i>
Pearson Chi-Square	13.968	4		.007
Likelihood Ratio	11.464	4		.022
Linear-by-Linear Association	9.266	1		.002
N of Valid Cases	83			

TABEL 4, the results of the Chi-Square statistical test showed that H0 was rejected, and Ha was accepted, with a p-value = 0.007 <0.05. Obtained the relationship between social media addiction, TikTok, and bedtime procrastination.

IV. DISCUSSION

A. TIKTOK SOCIAL MEDIA ADDICTION

Based on Table above, it is stated that most respondents who are addicted to TikTok social media are in the medium range, namely 58 respondents with a percentage of 69.9%. Young (2019) social media addiction is when someone is busy with social media, where getting satisfaction requires a long time and cannot reduce the time used because social media is used as a way out or escape [16]. Lestari, Dewi & Chairani (2020) stated that social media addiction is a mental disorder characterized by behavior where a person spends much time just accessing social media due to a lack of self-control [8].

The negative impact of social media addiction on teenagers is that they become individualized, easily angered, and contradict their parents' words and deceive their parents, difficulty balancing their online and academic activities and attracting students' attention and concentration, resulting in a decline in academic grades at school [17]. The TikTok social media addiction experienced by students can be managed by managing time and limiting or controlling themselves when accessing social media [18]. Get used to going to bed on time and limiting the use of social media at night to reduce addiction. Apart from that, being addicted to the social media TikTok can also interfere with planning work that should be done because you are too busy playing TikTok, so you lose concentration on studying and often lose track of time. Social media use that exceeds 4 hours and is done too often causes addiction [19].

B. BEDTIME PROCRASTINATION

Table states that 76 respondents, with a percentage of 91.6%, experienced bedtime procrastination. According to Magalhães (2020), teenagers want to delay their sleep time when they are about to sleep and when they are already in bed; this situation is caused because they enjoy watching videos on YouTube, watching films, listening to music and

one of them is accessing TikTok media [4]. Lack of sleep will impact the quality of sleep, which affects a person's physical and psychological condition. A person needs adequate rest or sleep so that the body functions properly. In a state of rest and sleep, the body recovers to return the body's stamina to optimal conditions [6].

Delayed sleep time can be managed by limiting activities to avoid waking up at night, namely using the social media TikTok to help the effectiveness of sleep hours. It was declared in the medium category because it turned out that it was not only TikTok social media that was accessed but other media such as Instagram, Facebook, Youtube, WhatsApp, Wattpad, Telegram, and Twitter that they used. But social media TikTok is the most dominant and most popular today. Accessing TikTok social media at night can result in delayed sleep time (bedtime procrastination) and cause drowsiness, interfering with activities during the day [20], [21].

C. THE RELATIONSHIP BETWEEN TIKTOK SOCIAL MEDIA ADDICTION AND BEDTIME

Based on TABLE 4 above, the results of the Chi-Square statistical test showed that H0 was rejected, and Ha was accepted, with a p-value = 0.007 <0.05. Obtained the relationship between social media addiction, TikTok, and bedtime procrastination. Addiction is an aspect of behavior that is excessive, addictive, and uncontrollable, including the use of social media [22]. Social media addict tends to be involved in social media activities and limits their social movements in the real world. High-intensity social media users are highly educated people, meaning that the higher a person's level of education, the higher the intensity of their usage activities [23]. This may be caused by intellectual aspects such as loneliness, where individuals have a narrow social circle [24].

According to the theory (Woods & Scoot 2020), Bedtime procrastination is when a person does not maintain a regular sleep schedule or often delays sleeping, so it is important to sleep regularly or at the right time. According to this habit, a person must sleep and wake up early [5]. Using social media, especially at night, can disrupt a person's sleep. Staring at a cellphone screen for too long can cause sleep disturbances because blue light is like daytime, making people stay awake and delaying sleep [25]. The factor that causes bedtime procrastination is that self-control can influence a person's decision to sleep according to the time. Poor self-control means a person's desire to sleep is at a different time than the average period or less than 8 hours [26].

Based on the researcher's analysis results, conclusions were drawn regarding the relationship between TikTok social media addiction and bedtime procrastination among students at SMAN 1 Glenmore. It is included in the moderate category because not only social media TikTok is open but also YouTube, Instagram, and Facebook. Students addicted to social media will find it challenging to stop accessing it or control the use of social media at bedtime, which can be a

problem. This results in increased sleep delays and less sleep time, resulting in poor sleep quality. What interests someone in opening TikTok is accessing the TikTok shop, live TikTok, posts from the homepage that are currently trending or newest, and notifications that appear on social media when going to sleep can trigger someone to reopen their social media and can cause someone to delaying bedtime to reaccess social media. The behavior of using TikTok social media, especially at night, will disrupt a person's sleep schedule, besides that, if you stare at a gadget screen for too long, it will cause difficulty sleeping.

V. CONCLUSION

The chi-square statistical analysis test was obtained, it shows that $p\text{-Value}=0.007 \leq 0.05$, so H_0 is rejected, and H_a is accepted, which offers a relationship between TikTok social media addiction and Bedtime Procrastination. This is very clear when a teenager increasingly desires to delay bedtime. There is a need to improve health promotion and counseling regarding the impact of excessive addiction to the social media TikTok, and schools and parents can set regulations or limits on gadget use so that they can reduce sleep delays because they can have bad effects both physiologically and cognitively.

REFERENCES

- [1] U. R. Keswara, N. Syuhada, and W. T. Wahyudi, "Perilaku penggunaan gadget dengan kualitas tidur pada remaja," *Holistik Jurnal Kesehatan*, vol. 13, no. 3, pp. 233–239, 2019, doi: 10.33024/hjk.v13i3.1599.
- [2] K. Woran, R. M. Kundre, and F. A. Pondaag, "Analisis Hubungan Penggunaan Media Sosial Dengan Kualitas Tidur Pada Remaja," *Jurnal Keperawatan*, vol. 8, no. 2, p. 1, 2021, doi: 10.35790/jkp.v8i2.32092.
- [3] R. Karini, *Skripsi: Pengaruh Media Sosial Tiktok Terhadap Prestasi Belajar Peserta Didik Di Smpn 1 Gunung Sugih Kab.* 2019.
- [4] S. Khairunnisa and D. Rusli, "Hubungan Kecanduan Media Sosial dengan Bedtime Procrastination pada Remaja," pp. 2143–2152, 2023.
- [5] S. Shintia, A. Rizal, and S. Kamilah, "Hubungan Ketergantungan Penggunaan Media Sosial Dengan Kualitas Tidur Pada Mahasiswa Keperawatan STIKIM Jakarta," *Open Access Jakarta Journal of Health Sciences*, vol. 1, no. 6, pp. 189–196, 2022, doi: 10.53801/oajjhs.v1i6.42.
- [6] Firmawati, A. A. Sudirman, and M. R. Lilir, "Hubungan Penggunaan Gadget Dengan Kualitas Tidur Pada Anak Usia Remaja Di Sma Negeri 1 Tilamuta," *Jurnal Ilmu Kesehatan dan Gizi (JIG)*, vol. 1, no. 2, 2023.
- [7] P. Magalhães, B. Pereira, A. Oliveira, D. Santos, J. C. Núñez, and P. Rosário, "The mediator role of routines on the relationship between general procrastination, academic procrastination and perceived importance of sleep and bedtime procrastination," *Int J Environ Res Public Health*, vol. 18, no. 15, 2021, doi: 10.3390/ijerph18157796.
- [8] A. C. Mile and R. Febriyona, "Jurnal Rumpun Ilmu Kesehatan HUBUNGAN KONTROL DIRI DENGAN KECANDUAN MEDIA SOSIAL (TIKTOK) PADA REMAJA DI SMPN 4 TILAMUTA The correlation between Self-Control and Social Media Addiction (Tiktok) in Adolescents at SMPN 4 Tilamuta," vol. 3, no. 1, 2023.
- [9] D. Kumalasari, *Prosiding Konferensi Mahasiswa Psikologi Indonesia 2020*, no. September. 2021.
- [10] J. JAMALUDIN, A. SYARIFAH, and K. KARYADI, "Faktor-Faktor Penyebab Kecanduan Media Sosial Pada Mahasiswa Fakultas Ilmu Kesehatan Uin Syarif Hidayatullah Jakarta," *Edu Dharmia Journal: Jurnal penelitian dan pengabdian masyarakat*, vol. 6, no. 2, p. 138, 2022, doi: 10.52031/edj.v6i2.424.
- [11] A. Azhari, Z. Toms, G. Pavlopoulou, G. Esposito, and D. Dimitriou, "Social media use in female adolescents: Associations with anxiety, loneliness, and sleep disturbances," *Acta Psychol (Amst)*, vol. 229, Sep. 2022, doi: 10.1016/j.actpsy.2022.103706.
- [12] T. Buana and D. Maharani, "Penggunaan Aplikasi Tik Tok (Versi Terbaru) dan Kreativitas Anak," *Jurnal Inovasi*, vol. 14, no. 1, pp. 1–10, 2020.
- [13] I. G. Purnawinadi and S. Salii, "Durasi Penggunaan Media Sosial Dan Insomnia Pada Remaja," *Klabat Journal of Nursing*, vol. 2, no. 1, p. 37, 2020, doi: 10.37771/kjn.v2i1.430.
- [14] F. M. Sirois, S. Nauts, and D. S. Molnar, "Self-Compassion and Bedtime Procrastination: an Emotion Regulation Perspective," *Mindfulness (N Y)*, vol. 10, no. 3, 2019, doi: 10.1007/s12671-018-0983-3.
- [15] N. Faizi and Y. Alvi, "Chapter 2 - Data management and SPSS environment**For datasets, please refer to companion site: <https://www.elsevier.com/books-and-journals/book-companion/9780443185502>," in *Biostatistics Manual for Health Research*, N. Faizi and Y. Alvi, Eds., Academic Press, 2023, pp. 17–43. doi: <https://doi.org/10.1016/B978-0-443-18550-2.00008-6>.
- [16] X. Wang, C. Yu, and Y. Wei, "Social Media Peer Communication and Impacts on Purchase Intentions: A Consumer Socialization Framework," *Journal of Interactive Marketing*, vol. 26, no. 4, 2012, doi: 10.1016/j.intmar.2011.11.004.
- [17] Yunita Mansyah Lestari, Suzy Yusna Dewi, and Aulia Chairani, "Hubungan Alexithymia dengan Kecanduan Media Sosial pada Remaja di Jakarta Selatan," *SCRIPTA SCORE Scientific Medical Journal*, vol. 1, no. 2, p. 9, 2020, doi: 10.32734/scripta.v1i2.1229.
- [18] J. Pastor-Galindo, F. Gómez Mármol, and G. Martínez Pérez, "Profiling users and bots in Twitter through social media analysis," *Inf Sci (N Y)*, vol. 613, pp. 161–183, Oct. 2022, doi: 10.1016/j.ins.2022.09.046.
- [19] R. N. AL-Dossary *et al.*, "Use of social media in nursing education in Saudi Arabia," *Inform Med Unlocked*, vol. 32, Jan. 2022, doi: 10.1016/j.imu.2022.101048.
- [20] A. A. Alalawneh, S. Y. S. Al-Omar, and S. Alkhatib, "The Complexity of Interaction between Social Media Platforms and Organizational Performance," *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 8, no. 4, 2022, doi: 10.3390/joitmc8040169.
- [21] A. A. A. Sharabati, S. Al-Haddad, M. Al-Khasawneh, N. Nababteh, M. Mohammad, and Q. Abu Ghoush, "The Impact of TikTok User Satisfaction on Continuous Intention to Use the Application," *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 8, no. 3, Sep. 2022, doi: 10.3390/joitmc8030125.
- [22] A. H. Adityaputra and S. Salma, "Regulasi diri dan kecanduan dalam penggunaan media sosial pada mahasiswa generasi z Fakultas Psikologi Universitas Diponegoro," *Jurnal Empati*, vol. 11, no. 6, pp. 386–393, 2022.
- [23] A. Azhari, Z. Toms, G. Pavlopoulou, G. Esposito, and D. Dimitriou, "Social media use in female adolescents: Associations with anxiety, loneliness, and sleep disturbances," *Acta Psychol (Amst)*, vol. 229, Sep. 2022, doi: 10.1016/j.actpsy.2022.103706.
- [24] D. Pratiwi, "edu jurnal_pak_jamal," 2022.
- [25] N. Ghaisani and A. Nadwahc, "Pengaruh penggunaan media sosial tik tok terhadap perilaku keagamaan remaja di kecamatan blangkejeren," *Jurnal Uinsu*, vol. Vol 27, no. No 2, pp. 6–20, 2021.
- [26] L. Castro-Santos, M. de O. Lima, A. K. P. Pedrosa, R. Serenini, R. C. E. de Menezes, and G. Longo-Silva, "Sleep and circadian hygiene practices association with sleep quality among Brazilian adults," *Sleep Med X*, vol. 6, p. 100088, 2023, doi: <https://doi.org/10.1016/j.sleepx.2023.100088>.

