



Heny Puspita Sari, Fanti Saktini, Innawati Jusup, Tanjung Ayu Sumekar

THE RELATIONSHIP BETWEEN SOCIAL MEDIA USAGE INTENSITY AND ACADEMIC PROCRASTINATION AMONG MEDICAL STUDENTS AT UNIVERSITAS DIPONEGORO

Heny Puspita Sari¹, Fanti Saktini², Innawati Jusup², Tanjung Ayu Sumekar^{2,3*}

¹Undergraduate student, Faculty of Medicine, Universitas Diponegoro, Semarang, Indonesia

²Department of Psychiatry, Faculty of Medicine, Universitas Diponegoro, Semarang, Indonesia

³Department of Physiology, Faculty of Medicine, Universitas Diponegoro, Semarang, Indonesia

Keywords:

Academic,
Procrastination,
Social media,
Student

Received: 11 October 2024

Revised: 21 May 2025

Accepted: 23 May 2025

Available online: 01 January 2026

Corresponding Author:

E-mail: tanjung.sumekar@fk.undip.ac.id

ABSTRACT

Background: The rapid development of communication technology makes access to social media easier. The interesting features which are available on social media bring not only positive impacts, but also the negative ones. The negative impacts can affect the life of students. As students spend more time on social media, it makes them prone to academic procrastination. **Objective:** This study is to examine the correlation between the intensity of social media usage and academic procrastination among medical students in Universitas Diponegoro. **Methods:** The study was conducted with a cross sectional method. The number of respondents are 76 who were selected by random simple sampling. Social Networking Time Use Scale (SONTUS) are used to measure the intensity of social media usage and Procrastination Assessment Scale for Students (PASS) are used to measure the level of academic procrastination among respondents. Penelitian ini menggunakan metode belah lintang. **Results:** The study showed that among 76 respondents, 96,1% considered very high media social users, 2,6% considered high, and 1,3% considered mild users, there's none in the low category. Additionally, the prevalence of academic procrastination 47,4% is in the high category, 52,6% is in the mild category and there's none in the low category. There were positive significant correlation between the intensity of social media usage and academic procrastination with p-value 0,028 ($p < 0.05$). **Conclusion:** There is a significant correlation between the intensity of social media usage and academic procrastination among medical students of Universitas Diponegoro.

Copyright ©2025 by Authors. Published by Faculty of Medicine, Universitas Diponegoro Semarang Indonesia. This is an open access article under the CC-BY-NC-SA (<https://creativecommons.org/licenses/by-nc-sa/4.0/>).

INTRODUCTION

The rapid development of communication technology over time makes access to social media increasingly easier. Based on data from the Indonesian Internet Service Providers Association (APJII), the number of Indonesians actively using social media reached 191.4 million people in 2022.^{1,2} With such a high number, it is undeniable that social media has become a necessity for society. Advanced social media with many features provides various benefits, such as being a tool for long-distance communication and a platform for quickly sharing up-to-date information.

Referring to data from We Are Social and Hootsuite in 2022, it revealed that several social media platforms are used in Indonesia, including Whatsapp, Instagram, Facebook, Tiktok, and Telegram.^{2,3} According to a study by APJII in 2022, Indonesians spend about 3 hours a day accessing the internet, with 98.02% of that time used for social media.

Given the above narrative, it is possible that social media can have negative impacts on users. According to Sujarwoto et al., increased use of social media can lead to social media addiction, causing uncontrollable desires in its use. Excessive use of social media can



Heny Puspita Sari, Fanti Saktini, Innawati Jusup, Tanjung Ayu Sumekar

disrupt important activities in life, such as decreasing academic performance in students.⁴

Students have various tasks, both academic and non-academic, which contribute to obtaining a professional degree. However, these tasks are often postponed for various reasons. Procrastination, the behavior of delaying tasks and diverting attention to more enjoyable activities, can negatively impact academic performance. Academic procrastination, in particular, is a form of dysfunctional procrastination.⁵

Procrastination can be divided into functional and dysfunctional. Functional procrastination involves delaying tasks to obtain more accurate information, while dysfunctional procrastination involves delaying tasks without any other purpose. Dysfunctional procrastination, especially academic procrastination, can have negative effects and lead to problems.⁶⁻⁹ Based on the background above, the researcher is interested in understanding the relationship between the intensity of social media use and academic procrastination among medical students at Diponegoro University.

METHODS

This analytical observational study employed a correlational approach with a cross-sectional design and was conducted in November 2023. The population consisted of medical students from 2020 cohort at the Faculty of Medicine, Universitas Diponegoro. A total of 76 participants were selected through simple random sampling. Inclusion criteria were active 2020-batch medical students who consented to participate and completed the questionnaire. Students who submitted incomplete or invalid responses were excluded.

Data were collected using two validated instruments which are Social Networking Time Use Scale (SONTUS) and the Procrastination Assessment Scale for Students (PASS). The SONTUS assessed the intensity of social media use across domains such as daily routine, leisure, and stress-related use, with higher scores indicating greater usage.¹⁰ Each item was rated using a Likert scale, and the total score categorized respondents into four levels Low (<40), Moderate (40–59), High (60–79), and Very High (≥80). Higher scores indicated more intensive social media use. The PASS measured academic procrastination based on frequency and reasons for delaying six academic tasks: writing a term paper,

studying for an exam, keeping up with weekly reading, performing administrative tasks, attending meetings, and performing general academic responsibilities.^{11,12} Responses were rated on a 5-point Likert scale. The total score was then used to classify procrastination levels into Low (<60), Moderate (60–79), and High (≥80) with higher scores indicating greater levels of academic procrastination.

The questionnaires were distributed via Google Forms and shared through class representatives and WhatsApp. Informed consent was obtained electronically at the beginning of the form. Data were analyzed using descriptive statistics and Spearman's correlation test to examine the relationship between social media use intensity and academic procrastination. All analyses were performed using SPSS version 18.0.

RESULTS

Tabel 1. Characteristics of Respondents

Characteristics	n	Percentage
Gender		
Male	20	26,3%
Female	56	73,7%
Residence		
Rent	53	69,7%
Home with Parents	23	30,3%
GPA		
2,01–2,75	1	1,3%
2,76–3,00	10	13,2%
3,01–3,50	40	52,6%
5,51–4,00	25	32,9%

Table 1 presented the demographic characteristics of the respondents. Of the 76 participants, 26.3% were male and 73.7% were female. A majority of respondents (69.7%) lived in rented or leased housing, while 30.3% lived with their parents. Regarding academic performance, 32.9% of students had a GPA between 3.51–4.00, 52.6% had a Grade Point Average (GPA) of 3.01–3.50, 13.2% had a GPA of 2.76–3.00, and only 1.3% had a GPA between 2.01–2.75.

Tabel 2. Distribution of Social Media Intensity

Social Media Usage	n	Percentage
Low	0	0,0%
Moderate	1	1,3%
High	2	2,6%
Very High	73	96,1%



Heny Puspita Sari, Fanti Saktini, Innawati Jusup, Tanjung Ayu Sumekar

Table 2 showed the distribution of social media usage intensity. Among the respondents, 96.1% were categorized as having very high intensity, 2.6% as high, and 1.3% as moderate. No participants were classified in the low category of social media usage

Tabel 3. Distribution of Academic Procrastination

Academic Procrastination	n	Percentage
Low	0	0,0%
Moderate	40	52,6%
Very High	36	47,4%

As shown in Table 3, the distribution of academic procrastination levels indicated that 47.4% of respondents exhibited high levels of procrastination, while 52.6% showed moderate levels. None of the participants fell into the low category.

Tabel 4. Relationship between Demographic Factors and Social Media Usage Intensity

Variable	Social Networking Time Use Scale (Sontus)		
	p-value	Percentage	N
Gender	0,297	-0,121	76
Residence	0,882	-0,017	76
GPA	0,764	-0,038	76

Table 4 showed the relationship between demographic variables and the intensity of social media use, analyzed using the Spearman correlation test. The correlation between gender and social media usage intensity yielded a p-value of 0.297 ($p > 0.05$), indicating no significant relationship. Similarly, the correlation between place of residence and social media usage intensity resulted in a p-value of 0.882 ($p > 0.05$), while GPA produced a p-value of 0.764 ($p > 0.05$), both indicating no significant associations.

Tabel 5. Relationship between Demographic Factors and Academic Procrastination

Variable	Procastination Assessment Scale for Students (Pass)		
	p-value	Percentage	N
Gender	0,808	0,028	76
Residence	0,350	-0,109	76
GPA	0,932	-0,010	76

Table 5 showed no significant correlation between gender and academic procrastination, with a p-value of 0.808 ($p > 0.05$). The correlation between residence and academic procrastination yielded a p-value of

0.350 ($p > 0.05$), and GPA showed a p-value of 0.932 ($p > 0.05$), both also indicating no significant relationships.

Tabel 6. Relationship between Social Media Usage and Academic Procrastination

Variable	Social Networking Time Use Scale (Sontus)		
	p-value	Percentage	N
Procastination Assessment Scale for Students (Pass)	0,028	0,252	76

Table 6 showed the relationship between the intensity of social media usage and academic procrastination. A Spearman's rank correlation test revealed a p-value of 0.028 ($p < 0.05$), indicating a statistically significant positive relationship between the two variables.

DISCUSSION

This study found that 96.1% of respondents exhibited a very high intensity of social media usage. This aligns with the current digital behavior among university students, especially in Indonesia, where social media platforms are deeply integrated into daily routines.^{13,14} From a behavioral perspective, this phenomenon can be understood through the lens of Uses and Gratifications Theory, which posits that individuals actively seek media to fulfill psychological and social needs such as social connection, entertainment, and identity expression.¹⁵ Social media platforms, designed to be interactive and reward-driven, may therefore become highly appealing to medical students who experience academic stress and seek quick forms of gratification and escape.¹⁵

The absence of significant relationships between social media usage and demographic variables such as gender, residence, and GPA suggests that the intensity of social media use is not confined to specific subgroups, but rather reflects a broader generational pattern of digital behavior.¹⁶ This finding supports research by Mellyna et al. and can also be interpreted through the concept of digital nativity, where individuals raised in the digital age develop similar patterns of media consumption regardless of traditional demographic distinctions.¹⁷ Furthermore, the non-significant association with GPA challenges the assumption that high social media use



Heny Puspita Sari, Fanti Saktini, Innawati Jusup, Tanjung Ayu Sumekar

automatically translates into poor academic performance.¹⁸ As noted in prior research, social media can serve academic functions such as peer discussion, access to educational content, and online collaboration that may buffer its negative effects. This dual role of social media, both as a distractor and a support tool, may partially explain the lack of a clear association with academic achievement.¹⁹

Academic procrastination did not show a significant association with gender, residence, or GPA. This suggests that procrastination among medical students may stem less from demographic influences and more from individual psychological and motivational factors. According to Temporal Motivation Theory, procrastination can be understood as a function of task value, expectancy, time sensitivity, and impulsiveness.²⁰ Students may delay academic tasks not because of their background, but because they perceive low immediate rewards, doubt their ability to succeed, or are easily distracted by more gratifying activities like social media. This is further supported by studies indicating that procrastination is often linked to self-regulation failure and avoidance motivation, rather than situational or demographic characteristics.²⁰⁻²³

A key finding in this study is the significant positive correlation between social media usage intensity and academic procrastination. This relationship suggests that higher engagement with social media is associated with a greater tendency to delay academic responsibilities. Several mechanisms may underlie this association. First, as proposed by the displacement hypothesis, time spent on social media may directly reduce the time available for academic work.^{24,25} Second, social media platforms foster an environment of instant gratification, which may undermine student's ability to engage in tasks that require delayed rewards and sustained effort which are components of academic work.²⁶ Third, high social media usage may impair attention span and cognitive control, increasing the likelihood of task avoidance. This is particularly problematic for students with lower self-efficacy, who may turn to social media as a form of escapism or to regulate negative emotions related to academic pressure.²⁶

It is also possible that the relationship is bidirectional. Students who tend to procrastinate may use social media more frequently as a tool for avoidance, thereby reinforcing the cycle of

procrastination.²⁷ This interplay between habitual media use and motivational deficits may create a self-perpetuating loop, where academic delay becomes increasingly difficult to interrupt without targeted interventions aimed at improving self-regulation, time management, and digital literacy.^{27,28}

This study has several limitations. First, the cross-sectional design does not allow for causal conclusions. It remains unclear whether social media use causes procrastination or whether students who tend to procrastinate are more likely to engage with social media. Second, the study relied on self-reported questionnaires, which are subject to biases such as social desirability and inaccurate recall. Third, the sample was limited to one academic cohort at a single university, which may reduce the generalizability of the findings. Future research should consider longitudinal designs, larger and more diverse samples, and incorporate additional variables such as personality traits, academic self-efficacy, or digital literacy.

CONCLUSION

This study found that the majority of medical students at the Faculty of Medicine, Diponegoro University, exhibited a very high level of social media usage intensity (96.1%), accompanied by substantial levels of academic procrastination, with 52.6% categorized as moderate and 47.4% as high. Demographic variables including gender, residence, and GPA were not significantly associated with either social media usage or academic procrastination, suggesting that these behaviors are consistent across student subgroups.

A significant positive correlation was identified between social media usage intensity and academic procrastination. This finding highlights the potential influence of excessive social media engagement on students' academic behaviors, particularly in contributing to delays in completing academic tasks. These results underscore the need for targeted interventions that promote self-regulation, time management, and responsible digital habits among university students to mitigate the impact of social media on academic performance.

ETHICAL APPROVAL

The research was conducted after obtaining ethical clearance from the Ethics Committee in Health



Heny Puspita Sari, Fanti Saktini, Innawati Jusup, Tanjung Ayu Sumekar

and Medical Research (KEPK) Faculty of Medicine, Diponegoro University, Semarang, with No.111/EC/KEPK/FK-UNDIP/IV/2023.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

FUNDING

No specific funding was provided for this article.

AUTHOR CONTRIBUTIONS

Conceptualization, Heny; methodology, Heny, Fanti, Inna, Tanjung; data analysis, Heny; data collection, Heny; source of funds, Heny; wrote the original draft, Heny; review and edit, Heny, Fanti, Inna, Tanjung; supervision, Fanti, Inna, Tanjung.

ACKNOWLEDGMENTS

This work was supported by Department of Psychiatry, Faculty of Medicine, Diponegoro University.

REFERENCES

1. Data Indonesia. Pengguna Media Sosial di Indonesia Capai 191 Juta pada 2022 . <https://dataindonesia.id/digital/detail/pengguna-media-sosial-di-indonesia-capai-191-juta-pada-2022>. 2022.
2. Asosiasi Penyelenggara Jasa Internet Indonesia. Profil Internet Indonesia 2022. Jakarta; 2022 Jun.
3. We Are Social & Hootsuite. Digital 2022: Another Year of BumperGrowth. <https://wearesocial.com/uk/blog/2022/01/digital-2022-another-year-of-bumper-growth-2/>. 2022.
4. Sujarwoto, Saputri RAM, Yumarni T. Social Media Addiction and Mental Health Among University Students During the COVID-19 Pandemic in Indonesia. *Int J Ment Health Addict*. 2023 Feb 1;21(1):96–110.
5. Jamila. Konsep Prokrastinasi Akademik Mahasiswa. *Jurnal EduTech*. 2020;6(2):257–61.
6. Yuliana Y, Wibowo ME, Mulawarman M. The Influence of Self-Control Through Self-Efficacy on Academic Procrastination. *Jurnal Bimbingan Konseling* [Internet]. 2022;11(4):301–7. Available from: <https://journal.unnes.ac.id/sju/index.php/jubk>
7. Putri Daryani D, Yuni Nugrahayu E. The Prevalence of Academic Procrastination among Students at Medicine Faculty Mulawarman University. *Jurnal Ilmu Kesehatan*. 2021 Dec 27;9(2):118–26.
8. Reswita. Hubungan antara Manajemen Waktu dan Prokrastinasi Akademik Mahasiswa PG-PAUD FKIP Universitas Lancang Kuning. *Jurnal Universitas Lancang Kuning*. 2019 Apr 29;2(2):25–32.
9. Siddiqui S, Singh T. Social Media its Impact with Positive and Negative Aspects. *International Journal of Computer Applications Technology and Research* [Internet]. 2016;5(2):71–5. Available from: www.ijcat.com
10. Olufadi Y. Social Networking Time Use Scale (SONTUS): A New Instrument for Measuring The Time Spent on The Social Networking Sites. *Telematics and Informatics*. 2016;33(2):452–71.
11. Mortazavi F, Mortazavi SS, Khosrorad R. Psychometric Properties of The Procrastination Assessment Scale-Student (PASS) in a Student Sample of Sabzevar University of Medical Sciences. *Iran Red Crescent Med J*. 2015 Sep 24;17(9).
12. Ferrari JR. Reliability of Academic and Dispositional Measures of Procastination. Vol. 64, *Psychological Reports*. 1989.
13. Osman WA. Social Media Use and Associated Mental Health Indicators among University Students: A Cross-sectional Study. *Sci Rep*. 2025 Dec 1;15(1):1–8.
14. Amelia T, Zainita UH, Martha E. Social Media Use Behavior and Social Media Disorder among Faculty of Public Health Students During the COVID-19 Pandemic. *Kesmas*. 2023;18(4):265–70.
15. Whiting A, Williams D. Why People Use Social Media: A Uses and Gratifications Approach. *Qualitative Market Research: An International Journal*. 2013 Aug 30;16(4):362–9.
16. Junco R, Merson D, Salter DW. The Effect of Gender, Ethnicity, and Income on College Students' Use of Communication Technologies. *Cyberpsychol Behav Soc Netw* [Internet]. 2010;13(6):619–27. Available from: www.liebertpub.com



Heny Puspita Sari, Fanti Saktini, Innawati Jusup, Tanjung Ayu Sumekar

17. Eka M, Fitri Y, Chairael DL, Ekonomi F, Bisnis D. Penggunaan Media Sosial berdasarkan Gender terhadap Prestasi Belajar Mahasiswa. Jurnal Benefita [Internet]. 2019 Feb;4(1):162–82. Available from: www.republika.co.id,
18. Ilyas Junaid, Munir Hadi Faizan. The Impact of Social Media on Student Academic Performance and Digital Wellbeing. The International Conference on Education, Social Sciences and Technology (ICESST). 2022 Dec 30;1(2):363–9.
19. Haji SA. Navigating the dual Impact of Social Media on Academic Performance and Social Interactions in Higher Education. Journal of Educational Technology and Online Learning. 2025 May 31;8(2):299–312.
20. Steel P, Svartdal F, Thundiyil T, Brothen T. Examining Procrastination Across Multiple Goal Stages: A Longitudinal Study of Temporal Motivation Theory. Front Psychol. 2018 Apr 3;9(APR).
21. Steel P. The Nature of Procrastination: A Meta-analytic and Theoretical Review of Quintessential Self-regulatory Failure. Vol. 133, Psychological Bulletin. 2007. p. 65–94.
22. Wang Y, Gao H, Sun chang, Liu J, Fan X long. Academic Procrastination in College Students: The Role of Self-leadership. Pers Individ Dif. 2021 Aug 1;178.
23. Mohammadi Bytamar J, Saed O, Khakpoor S. Emotion Regulation Difficulties and Academic Procrastination. Front Psychol. 2020 Nov 4;11.
24. Hall JA, Liu D. Social Media Use, Social Displacement, and Well-being. Curr Opin Psychol. 2022 Mar;46.
25. Hall JA, Johnson RM, Ross EM. Where does the time go? An experimental test of what social media displaces and displaced activities' associations with affective well-being and quality of day. New Media Soc. 2019 Mar 1;21(3):674–92.
26. Przybylski AK, Nguyen T vy T, Law W, Weinstein N. Does Taking a Short Break from Social Media Have a Positive Effect on Well-being? Evidence from Three Preregistered Field Experiments. J Technol Behav Sci. 2021 Sep 1;6(3):507–14.
27. Le Roux DB, Parry DA. Off-task Media Use in Academic Settings: Cycles of Self-regulation Failure. Journal of American College Health. 2021;69(2):134–41.
28. Chen WL, Chung SH. Academic Procrastination and Emotion Regulation: Parallel Trajectories and Reciprocal Influences Over an Academic Semester. Pers Individ Dif. 2025 Apr;237.