

The Relationship FoMO (Fear of Missing Out) and Nomophobia with Phubbing Behavior among Adolescent Instagram Users

Bonieta Dwi Lestari¹, Dwi Suratmini^{2,*}

¹Bachelor of Nursing Program, Faculty of Health, Universitas Pembangunan Nasional "Veteran" Jakarta, Indonesia.

²Faculty of Health Science, Universitas Pembangunan Nasional "Veteran" Jakarta, Indonesia.

*corresponding author: dwisuratmini@upnvj.ac.id

Received September 23, 2023

Revised December 18, 2023

Accepted February 05, 2024

Available online February 28, 2024

Abstract

Aims: FoMO is experienced by many adolescents who constantly update information. The majority of adolescents have accessed information through Instagram on their mobile phones. Thus, adolescents cannot separate from a mobile phone called nomophobia, which can affect social interaction as apathetic those around called phubbing behavior. This study aims to determine the relationship between FoMO and nomophobia with phubbing behavior among adolescent Instagram users.

Methods: This cross-sectional study was conducted on 319 respondents in Depok who were selected through a purposive sampling technique based on inclusion and exclusion criteria. This study was conducted using valid and reliable questionnaires: the FoMO adaptation scale ($r=0.720$), the Nomophobia Questionnaire (NMP-Q) ($r=0.901$), and the Phubbing Scale Questionnaire ($r=0.920$). Univariate analysis was performed for categorical data using the frequency distribution test and central tendency test for numerical data, while the bivariate test used Pearson Correlation.

Results: The correlation analysis of FoMO with phubbing behavior showed moderate correlation strength and positive direction ($p=0.001$), ($r=0.446$), while the results of the correlation analysis of nomophobia with phubbing behavior showed weak correlation strength and positive direction ($p=0.001$), ($r=0.395$).

Conclusion: FoMO and nomophobia have a relationship with phubbing behavior among adolescent Instagram users. Health promotion and early detection of FoMO, nomophobia, related to phubbing behavior is essential to prevent disruption of adolescent development. Further research regarding improving self-management skills when using mobile phones can be provided.

Keywords: adolescents, FoMO, Instagram user, nomophobia, phubbing

Introduction

Adolescence is a transition period in a child's development towards adulthood. At this stage of development, the characteristics of adolescents include building peers, having a high sense of curiosity, and seeking self-identity (Mokalu & Boangmanalu, 2021). In seeking self-identity, adolescents need acceptance and recognition from the environment

to form a positive self-concept (Icha & Kurniadi, 2022). In order to be accepted by this environment, adolescents tend to be the best version of themselves by constantly updating information to avoid being left behind by current trends, thus potentially causing FoMO (Maulana et al., 2019). FoMO (Fear of Missing Out) is a negative response such as lack or pressure due to not meeting information needs (Utami & Aviani, 2021). Studies show that 50% of adolescents experienced FoMO (Akbar et al., 2019). Adolescents feel uncomfortable if they do not know what other people know. Updated information is essential for adolescents to increase their self-confidence.

The adolescent's need for information makes them feel that they must always be connected to information sources, namely social media (Elhai et al., 2016). Instagram is a social media platform that is widely used by adolescents (Mafulla & Kholik, 2021), and the majority of them access it using their mobile phones (Rahmi & Sukarta, 2020). Currently, mobile phones play a critical role in fulfilling the information needs of adolescents. It means that adolescents cannot be separated or far from their mobile phones. Adolescents will feel anxious if they do not bring their mobile phones for fear of missing important or new information. The condition where individuals experience excessive anxiety when away from mobile phones is called nomophobia (No Mobile Phone Phobia) (Kalaskar, 2015). Hamutoglu et al. (2018) state that FoMO causes nomophobia with a prediction result of 41%. Adolescents spend much time accessing Instagram using mobile phones. The average duration of Indonesian people, mainly adolescents, accessing social media is about 3 hours 26 minutes (Saputra, 2019), and 36.5% of them tend to use Instagram in a high category (Suhartanti, 2016). Another study on 100 teenagers at SMA Negeri 9 Yogyakarta also shows that 76% of respondents have a high category of Instagram use by mobile phones.

Apart from being a source of information, Instagram can help adolescents communicate and establish social interactions in cyberspace. However, the high intensity of using mobile phones to communicate in cyberspace can reduce adolescents' communication and interaction skills in real life (Hura et al., 2021). Adolescents will become indifferent and focus on mobile phones rather than developing interactions with the surrounding environment (Aprinta & Dwi, 2017). Adolescents become apathetic towards their surroundings and even feel that they do not really need other people. This condition, where teenagers focus more on their cell phones and ignore interactions with people around them is called phubbing. Phubbing behavior can disrupt the adolescent's development in establishing interpersonal relationships and forming self-identity. Davey et al. (2018) study results show that of the 21% of the adolescent population in India, nearly 20% of adolescents showed consequences of excessive smartphone use in terms of mental health problems in the form of concentration difficulties, attention hyperactivity-deficit disorder, and possible phubbing amongst adolescents.

FoMO, nomophobia, and phubbing are things that many adolescents experience today. This problem could disrupt the psychosocial development of adolescents. However, studies about the relationship between FoMO and nomophobia with phubbing behavior are still limited. This research was conducted to see the relationship between FoMO with phubbing behavior in adolescent Instagram users.

Methods

This study uses a descriptive-cross sectional design to determine the correlation between the independent variables of fear of missing out and nomophobia with the dependent variable of phubbing behavior of adolescent Instagram users. This study was conducted at SMA Negeri 6, randomly selected as an institution where adolescents attend in Depok. Depok is the city that dominates internet usage in West Java and has the highest number of internet consumers in Indonesia (Fathoni, 2018). The population in this study is adolescents, amounting to 1,054 students. Furthermore, from this population, the researcher took 319 students as respondents who were calculated using the Slovin formula and an additional 10% of the total sample to anticipate sample dropout. The sample of the study was selected using purposive sampling techniques concerning the inclusion criteria: (1) active in using mobile phones (intensity of >4 hours/day), (2) having an account/actively using Instagram for at least one year, (3) actively using Instagram with an intensity of ≥ 5 hours/day. Meanwhile, the exclusion criteria in this study are: (1) have cognitive problems, (2) have a physical disability, (3) have barriers in reading and writing. The researcher communicated to the teacher and head of each class at the school regarding the inclusion and exclusion criteria of the study. Students who were potential respondents (meeting the inclusion and exclusion criteria) were gathered to explain the research in detail. Adolescents who have met the inclusion and exclusion criteria are explained about this study and their willingness to participate in the study (informed consent) by the researcher. Respondents who are willing and have filled out the willingness sheet then become respondents.

Data were collected using a Likert questionnaire instrument scale adopted from a previous study with an Indonesian version and have been tested for validity and reliability in this study. The questionnaire sheet consists of four sheets, including the respondent characteristic data sheet containing gender, class, age, duration of cellphone use per day, duration of Instagram application use per day, frequency of opening the Instagram application per day, and length of use of the Instagram application in years, fear of missing out scale questionnaire sheet, Nomophobia Questionnaire (NMP-Q) questionnaire sheet, and phubbing scale questionnaire sheet. Measurement of the fear of missing out variable uses the fear of missing out scale adaptation scale questionnaire from Przybylski et al. (2013) with validity test results ($r > 0.361$) and reliability results (0.720). Measurement of nomophobia variables using the Nomophobia Questionnaire (NMP-Q), which has been modified into a range of attitude scales by Sihombing (2018), with validity test results ($r > 0.361$) and reliability results (0.901). Measurement of phubbing behavior variables using the phubbing scale questionnaire by Pemayun (2019), which consists of 10 questions and uses alternative Likert scale answers with validity test results ($r > 0.361$) and reliability results (0.920).

Detailed data on respondent characteristics are presented in frequency distribution tables for categorical data and central tendency tables for numerical data. A normality test was conducted with Kolmogorov-Smirnov to determine whether the data were normally distributed ($p > 0.05$). The relationship between numerical variables was analyzed using Pearson Product Moment correlation because of the interval scale and using the SPSS for Window Release 26 statistical program, which will be proven to correlate if the p-value < 0.05 . Researchers prioritize the principle of research ethics for

respondents according to the Ethical Approval from the Research Ethics Commission of the UPN "Veteran" Jakarta with number 345/VIII/2023/KEPK.

Results

The characteristics of respondents in this study consisted of gender, grade, age, duration of mobile phone use per day, duration of Instagram application use per day, frequency of opening the Instagram application per day, and length of Instagram app usage in years. Our participants were dominated by the female gender, with 229 students (71.9%), and dominated by class XII, totaling 150 students (47%) (Table 1). The average age of respondents is 17 years, with the youngest age being 16 years and the oldest 19 years, with a standard deviation of 0.770 (95% CI=17.11-17.28) (Table 2). The average use of the respondents' mobile phones in this study was seven hours/day, with an average frequency of opening Instagram/day five times. It is known that respondents use the Instagram application for an average of five hours/day. The average length of time adolescents become users of the Instagram application is years, namely five years, with a minimum length of use of two years.

Table 1. Frequency distribution of characteristics of research respondents

Characteristics	f	%
Gender		
Male	90	28.2
Female	229	71.9
Grade		
X	69	21.6
XII	100	31.3
XII	150	47

Table 2. Average distribution of characteristics of research respondents

Characteristics	Mean	SD	Min	Max	95%	
					Lower	Upper
Age	17.20	0.770	16	19	17.11	17.28
Duration of mobile phone use	6.97	0.872	5	8	6.87	7.06
Frequency of opening the Instagram application	5.19	0.734	4	6	5.11	5.27
Duration of Instagram application usage per day (hours)	5.46	0.657	5	8	5.39	5.53
Length of Instagram application usage in years	4.71	1.06	2	6	4.59	4.83

SD: Standard deviation; Min: Minimal; Max: Maximal; CI:Confidence Interval

The bivariate analysis results using Pearson product-moment correlation on the FoMO (Fear of Missing Out) variable with phubbing behavior in adolescent Instagram users at SMA Negeri 6 Depok show a significant relationship between the two variables (p=0.001). The analysis results are also obtained from the r-value of 0.446, which means there is a moderate degree of correlation and positive direction.

The results of bivariate analysis using Pearson product-moment correlation on the nomophobia variable with phubbing behavior in adolescent Instagram users at SMA Negeri 6 Depok show a significant relationship between the two variables (p=0.001). The

results of the analysis are also obtained from the r-value of 0.395, which means that there is a weak degree of correlation and positive direction (Table 3).

Table 3. Correlation analysis of FOMO (Fear of Missing Out) and nomophobia with phubbing behavior

Variable	Phubbing behavior						Total		r-coefficient	p
	Low		Moderate		High		N	%		
	n	%	n	%	n	%				
Fear of Missing Out										
Low	37	74	0	0	13	26	50	100	0.446	0.001
Moderate	0	0	202	97.1	6	2.9	208	100		
High	13	21.3	6	9.8	42	68.9	61	100		
Total	50	15.7	208	65.2	61	19.1	319	100		
Nomophobia										
Low	15	38.5	22	56.4	2	5.1	39	100	0.395	0.001
Moderate	35	16	15	68.5	34	15.5	219	100		
High	0	0	36	59	25	41	61	100		
Total	50	15.7	208	65.2	61	19.1	319	100		

Discussion

The results of this study found that phubbing behavior in adolescent Instagram users at SMA Negeri 6 Depok is related to the level of FOMO (fear of missing out) and nomophobia. The higher FoMO and nomophobia gave a higher level of phubbing behavior. Individuals will be anxious when away from using a mobile phone, which means that the individual always feels dependent. This causes individuals to have an apathetic life framing and can be indirectly linked to the fact that it will reduce one's social presence due to the creation of phubbing behavior (Tandon et al., 2021). This finding is also supported by the results of previous research (Khofila et al., 2023). The pleasant feelings that are a form of interpretation of Instagram features make adolescents less able to control the use of their mobile phones. Ultimately, adolescents become more isolated from the social environment, tend to be apathetic, and eventually curb their behavior.

Phubbing occurs because of the desire to stay updated on ongoing information and events and showcase one's activities or achievements. This is what triggers people with FoMO and nomophobia to actively use their mobile phones to fulfill the need for information updates, and there is a neglectful attitude toward the other person (Strinaricwari, 2023). In addition, this is also because FoMO perpetrators do not want information disconnection in themselves in every expected situation, which ultimately triggers phubbing behavior. Obsession with mobile phones reflects the need to keep in touch with their virtual social environment. This may be due to the need to keep in touch with their virtual social environment (Wen et al., 2023). The ease of access provided by mobile phones makes teenagers interact more dominantly through mobile phones and ignore their interlocutors.

Adolescents with a high fear of missing out will feel anxious and haunted by excessive worry when there is something that is not fulfilled, so a strong desire arises to check or verify the presence or absence of the latest information by checking excess mobile phones

regardless of the situation (Álvarez-Cabrera et al., 2021). Supported by the results of other studies that make FoMO a predictor factor through excessive mobile phone use, including the use of the Instagram application always to be connected to updated information and have an impact on ignoring the interlocutor or phubbing behavior (Strinaricwari, 2023). This will interfere with the process of adolescent social interaction, especially interpersonal communication, which is one of the developmental tasks of adolescence.

Adolescents become apathetic to the surrounding conditions and even feel that they do not need other people in real terms. Besides that, other negative impacts of phubbing on social interactions are poor interpersonal relationships, social ethics issues, and the past during personal conversations (Gao et al., 2023). The inability of adolescents to control themselves properly is associated with the occurrence of this phenomenon (Savitri & Suprihatin, 2021). These findings are evidenced by the results of previous studies, which show that adolescents must be able to control feelings, thoughts, and actions in order to withstand internal and external events so that they can act correctly (Kurnia et al., 2020). Therefore, with this research, it is hoped that adolescents can consider the intensity of using mobile phones and social media.

Limitations

Data collection was carried out at only one senior high school in Depok City. Meanwhile the distribution of demographic data characteristics could be more evenly distributed. However, researchers used appropriate research methods, including determining the research design, the number of samples, random sampling methods, and the data collection process by research procedures. However, the strength of current study is by using valid and reliable data collection instruments to reduce the bias that occurs so that the results in this research can be trusted and generalized to the general population of adolescent Instagram users.

Contribution to global nursing practice

These results can increase awareness and the basis for treating FoMO, nomophobia, and phubbing behavior in adolescents. Recognition and prevention efforts can be emphasized more. In addition, this research can be used as a reference for further research on interventions to prevent FoMO, nomophobia, and phubbing behavior in adolescents.

Conclusion

FoMO and nomophobia have a relationship with phubbing behavior in adolescent Instagram users. Mobile phones are an essential part of adolescents' lives in this digital era. The more adolescents spend their time establishing social interactions in the virtual world, the more their ability to establish social interactions in real life can also be reduced. Early detection and education on improving self-management skills in using mobile phones and preventing FoMO, nomophobia, and phubbing behavior can be given to adolescents, especially girls, to be wiser in living life in this digital era. Further research regarding interventions to improve adolescent self-management skills can be carried out.

Author Contribution

All authors have accepted responsibility for the entire content of this manuscript and approved its submission.

Conflict of interest

The authors state no conflict of interest.

Acknowledgment

The researcher would like to thank SMA Negeri 6 Depok for participating in the data collection.

References

- Akbar, R. S., Aulya, A., Psari, A. A., & Sofia, L. (2019). Ketakutan akan kehilangan momen (FoMo) pada remaja Kota Samarinda. *Psikostudia: Jurnal Psikologi*, 7(2), 38. <https://doi.org/10.30872/psikostudia.v7i2.2404>
- Álvarez-Cabrera, P., Carvallo, R., Hamdan, R., & Laura, C. (2021). Niveles de Nomofobia y Phubbing en estudiantes de la Universidad Santo Tomás de la Ciudad de Arica. 22, 91–108.
- Aprinta, G., & Dwi, E. (2017). Hubungan Penggunaan Media Sosial dengan Tingkat Kepekaan Sosial di Usia Remaja. *Jurnal The Messenger*, 9(1), 65. <https://doi.org/10.26623/themessenger.v9i1.428>
- Davey, S., Davey, A., Raghav, S., Singh, J., Singh, N., Blachnio, A., & Przepiórkaa, A. (2018). Predictors and consequences of “Phubbing” among adolescents and youth in India: An impact evaluation study. *Journal of Family and Community Medicine*, 25(1), 35. https://doi.org/10.4103/jfcm.JFCM_71_17
- Elhai, J. D., Levine, J. C., Dvorak, R. D., & Hall, B. J. (2016). Fear of missing out, need for touch, anxiety and depression are related to problematic smartphone use. *Computers in Human Behavior*, 63, 509–516. <https://doi.org/10.1016/j.chb.2016.05.079>
- Fathoni, A. A. (2018). Pengaruh penggunaan fitur Instagram stories dan interface design Instagram terhadap kepuasan menggunakan Instagram pada Mahasiswa Fakultas Ilmu Komunikasi Universitas Gunadarma. *Mediakom: Jurnal Ilmu Komunikasi*, 2(1), 206–218. <https://doi.org/10.35760/mkm.2018.v2i1.1893>
- Gao, B., Liu, Y., Shen, Q., Fu, C., Li, W., & Li, X. (2023). Why cannot I stop phubbing? Boredom proneness and phubbing: A multiple mediation model. *Psychology Research and Behavior Management*, pp. 16, 3727–3738. <https://doi.org/10.2147/PRBM.S423371>
- Hamutoglu, N. B., Gezgin, D. M., Sezen-Gultekin, G., & Gemikonakli, O. (2018). Relationship between nomophobia and fear of missing out among Turkish university students. *Cypriot Journal of Educational Sciences*, 13(4), 549–561. <https://doi.org/10.18844/cjes.v13i4.3464>
- Hura, M. S., Sitasari, N. W., & Rozali, Y. A. (2021). Pengaruh Fear of Missing Out terhadap perilaku phubbing pada remaja. *Jurnal Psikologi: Media Ilmiah Psikologi*, 19(2), 34–45.
- Icha, N. R., & Kurniadi, O. (2022). Hubungan antara menggunakan Tik Tok dengan perilaku eksistensi diri. *Bandung Conference Series: Public Relations*, 2(1). <https://doi.org/10.29313/bcspr.v2i1.939>
- Kalaskar, P. B. (2015). A study of awareness of development of NoMoPhobia condition in smartphone user management students in Pune city. *ASM's International E-Journal on Ongoing Research in Management and IT*, 10, 320-326.
- Khofila, R., Dinata Saragi, M. P., Erhanda Lubis, M. A., & Ghaisani, F. (2023). Hubungan phubbing smombie dan nomophobia terhadap perilaku manusia. *Jurnal Mahasiswa BK An-Nur: Berbeda, Bermakna, Mulia*, 9(1), 235. <https://doi.org/10.31602/jmbkan.v9i1.10247>

- Kurnia, S., Sitasari, N. W., & M, S. (2020). Kontrol diri dan perilaku phubbing pada remaja di Jakarta. *Jurnal Psikologi : Media Ilmiah Psikologi*, 18(1), 58–67.
- Mafulla, D., & Kholik, A. (2021). Efektifitas media sosial Instagram sebagai strategi promosi online kawasan wisata Pacet Mojokerto. *El-Idarah (Jurnal Manajemen)*, 1 no 2(2), 1–8. <http://jurnal.stiedarulfalahmojokerto.ac.id/index.php/Jurnal-el-Idhara/article/download/87/114>
- Maulana, A., Afghan, M., & Rynaldi, D. (2019). Pengaruh Instagram terhadap tingkat kepercayaan bergaul mahasiswa. *Jurnal Kajian Media*, 3(2). <https://doi.org/10.25139/jkm.v3i2.1999>
- Mokalu, V. R., & Boangmanalu, C. V. J. (2021). Teori Psikososial Erik Erikson: implikasinya bagi Pendidikan Agama Kristen di Sekolah. *VOX EDUKASI: Jurnal Ilmiah Ilmu Pendidikan*, 12(2), 180–192. <https://doi.org/10.31932/ve.v12i2.1314>
- Pemayun, P. M. (2019). *Pengaruh Adiksi Smartphone, Fear of Missing Out (FOMO) dan Konformitas terhadap Phubbing* (Skripsi thesis). <https://repository.uinjkt.ac.id/dspace/handle/123456789/48122>
- Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, 29(4), 1841–1848. <https://doi.org/10.1016/j.chb.2013.02.014>
- Rahmi, K., & Sukarta, C. (2020). Fear of Missing Out dengan Nomophobia pada mahasiswa. *Journal Social Philantropic*, 1(2), 23–30.
- Saputra, A. (2019). Survei penggunaan media sosial di kalangan mahasiswa Kota Padang menggunakan teori uses and gratifications. *Baca: Jurnal Dokumentasi Dan Informasi*, 40(2), 207. <https://doi.org/10.14203/j.baca.v40i2.476>
- Savitri, E. N. A., & Suprihatin, T. (2021). Peran Kontrol Diri dan Fear of Missing Out (FoMO) terhadap kecenderungan adiksi media sosial pada Generasi Z yang berstatus mahasiswa. *Psisula: Prosiding Berkala Psikologi*, 3, 336–346. <https://doi.org/10.30659/psisula.v3i0.21491>
- Sihombing, R. A. (2018). *Hubungan Antara Sensation Seeking dengan Sikap terhadap Nomophobia* (Skripsi thesis). <http://repository.unika.ac.id/18678/>
- Strinaricwari, A. (2023). *Peran Fear of Missing Out Terhadap Phubbing pada Siswa SMA Kristen di Kota Surakarta*. *Jurnal Pemikiran dan Penelitian Psikologi* 19(1). <https://doi.org/10.32528/ins.v19i1.7210>
- Suhartanti, L. (2023). Pengaruh kontrol diri Terhadap Narcissistic Personality Disorder pada pengguna instagram Di SMAN 1 Seyegan. *Jurnal Riset Mahasiswa Bimbingan Dan Konseling*, 5(8), 184–195.
- Tandon, A., Dhir, A., Talwar, S., Kaur, P., & Mäntymäki, M. (2022). Social media induced fear of missing out (FoMO) and phubbing: Behavioural, relational and psychological outcomes. *Technological Forecasting and Social Change*, 174, 121149. <https://doi.org/10.1016/j.techfore.2021.121149>
- Utami, P. D., & Aviani, Y. I. (2021). Hubungan antara regulasi diri dengan Fear of Missing Out (FoMO) pada remaja pengguna Instagram. *Jurnal Pendidikan Tambusai*, 5(1), 177–185. <https://doi.org/10.31004/jptam.v5i1.928>
- Wen, J., Huang, Y., Liu, G., & Miao, M. (2023). The nature of nomophobia and its associations with contents of smartphone use and fear of missing out: A network perspective. *Telematics and Informatics*, 82, 102011. <https://doi.org/10.1016/j.tele.2023.102011>