

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

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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 an adolescent have accessed information through Instagram on their mobile phones, so 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 in June-August using valid and reliable questionnaires, namely 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-value 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-value 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 important to prevent disruption of adolescent development. Further research regarding the improvement of 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 always 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 don't know what other people know. Updated information is important for adolescents to increase their self-confidence.

The adolescent's need for information makes feeling 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 are one of the important needs for adolescents. The ability of mobile phones to help fulfill information needs means that adolescents cannot be separated or far from their mobile phones. Adolescents will feel anxious if they don't 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, especially adolescents accessed social media 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 don't really need other people. This condition, where adolescents focus more on mobile phones and ignore interactions with those around them, is called phone snubbing or phubbing behavior. Phubbing behavior can potentially disrupt the adolescent's development in establishing interpersonal relationships and forming self-identity. Davey et al. (2018) study results show that of the 21% 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 can potentially 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 Fear of Missing Out and Nomophobia 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 in June-August at SMA Negeri 6, which was 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 1054 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 prevent 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, namely 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 use the fear of missing out scale adaptation scale questionnaire from Przybylski et al. (2013) with validity test results ($r > 0,361$ reliability results of 0.720), which means reliable. 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 of 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 of 0,920).

Detailed respondent characteristics data 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 or not (sig $p > 0.05$). 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. Table 1 shows that this study was dominated by female gender with 229 students (71.9%), and is dominated by class XII, totaling 150 students (47%).

Table 2 shows that 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). 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 on average five hours/day. For the average length of time adolescents become users of the Instagram application in the form of 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, which is supported by a p-value of 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, which is supported by a p-value of 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-value
	Low		Moderate		High		N	%		
	n	%	n	%	n	%	N	%		
Fear of Missing Out										
Low	37	74	0	0	13	26	50	100	.446	.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	.395	.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. It can be interpreted that the higher FoMO and nomophobia gave the 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, and in the end adolescents become more isolated from the social environment, tend to be apathetic, and eventually phubbing behavior.

Phubbing occurs because of the desire to stay updated on ongoing information and events and also to showcase one's own 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 towards 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.

Basically, 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 that a strong desire arises to check or simply 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 to always 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, another negative impacts of phubbing on social interactions are poor interpersonal relationships, social ethics issues, and pasif during person 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, that adolescents must be able to control feelings, thoughts, and actions in order to withstand internal and external so that they are able to 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

This research has limitations. Data collection was carried out at one senior high school in Depok city. Apart from that, the distribution of demographic data characteristics is also less evenly distributed. However, researchers used appropriate research methods, including determining the research design, the number of samples and random sampling methods, as well as the data collection process by research procedures. One way to collect data 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 important part of adolescents' lives in this digital era. The more adolescents spend their time establishing social interactions in the virtual world, their ability to establish social interactions in the 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 helping distribute and has given permission to carry out data collection.

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