

The Role of Boredom Proneness in Moderation of The Relationship between FoMO and Phubbing Behavior of Yogyakarta's Gen-Z

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ABSTRACT

The rapid advancement of social media has given rise to the phenomenon of phubbing, which is the tendency for someone to ignore social interactions around them because they are too focused on using their mobile phone. This phenomenon is often associated with Fear of Missing Out (FOMO) and Boredom Proneness. The purpose of this study is to analyze the influence of FOMO on phubbing behavior with Boredom Proneness as a moderating variable on Gen-Z social media users in Yogyakarta. This study uses a quantitative approach by conducting a survey of 215 respondents determined through a purposive sampling technique. Data collection was carried out through a questionnaire with a Likert scale, then analyzed using descriptive tests, classical assumption tests, path analysis, and Moderated Regression Analysis (MRA). Based on the results of the analysis that has been done, it shows that FOMO has a positive and significant effect on phubbing behavior ($\beta = 0.302$; $p = 0.004$). In addition, Boredom Proneness also plays a significant role as a moderator that strengthens the relationship between FOMO and phubbing ($\beta = 0.319$; $p = 0.003$). This means that the higher the FOMO and boredom tendency, the more likely an individual is to engage in phubbing. This study is limited by the number of respondents who did not meet the ideal target, where only 215 respondents were collected from the target of 400 people. Therefore, it is recommended that further research involve a larger and more diverse sample. Theoretically, this study enriches the understanding of the psychological factors of the digital behavior of the younger generation, while practically, the results can be the basis for developing digital literacy and self-regulation to reduce phubbing behavior among Gen-Z.

Introduction

The development of digital technology in the era of globalization has significantly changed human communication and social interaction patterns, especially among the

younger generation. Today, smartphone and social media use have become an essential part of daily life, not only for adults but also for children and adolescents. According to 2020 data from the Central Statistics Agency (BPS), Generation Z is the largest population group in Indonesia, with approximately 71.5 million people, or 26.46% of the total population. Technology plays a dominant role in their lives, especially in communication, social interaction, and creative activities. Popular platforms such as Instagram, TikTok, and YouTube play a major role in meeting the communication, entertainment, and self-expression needs of Generation Z. Based on the *We Are Social and Data Reportal* (2024) report, Indonesia has around 139 million active social media users, with the 18–34 age group—which mostly consists of Generation Z—being the largest user group.

Generation Z is known as the group that grew up in a digital environment or *iGeneration*, where technology has become an integral part of their lives. This further reinforces the prevalence of *phubbing* in everyday life, especially among Gen Z, who intensively use social media. The attachment between Generation Z and technology has led to a significant number of *phubbing experiences* (Evi & Miftakhul, 2024). *Phubbing* is a habit of someone ignoring social interactions around them due to being too focused on using a smartphone (Chotpitayasunondh & Douglas, 2018). Research shows that *phubbing behavior* is rooted in the psychological need to always be digitally connected, which ultimately can reduce the quality of interpersonal relationships. This phenomenon is now widely found in social contexts such as friendships and academic environments, and has the potential to reduce an individual's social and emotional well-being.

One of the psychological factors that influence the emergence of this behavior is Fear of Missing Out (FOMO), namely the feeling of fear of missing out on social activities or information that occurs in the digital world. (Przybylski et al., 2013). According to *Self-Determination Theory* developed by Deci & Ryan, 2000; Maknun et al., 2023 every individual has three main psychological needs, namely competence, autonomy, and connectedness. If these three psychological needs are not met properly, individuals tend to experience non-autonomous motivation, one manifestation of which is the emergence of Fear of Missing Out (FOMO). FOMO drives individuals to stay connected online to fulfill their need for social connections. In the context of Gen Z Indonesia, social media is the primary means of fulfilling these needs. However, when social media use is driven by FOMO and reinforced by *boredom-proneness*, individuals tend to exhibit *phubbing* behavior as a form of compensation for social dissatisfaction in the real world.

According to research conducted by Ali et al. (2023), individuals with high levels of FOMO are more likely to engage in *phubbing*, driven by the desire to stay connected and not miss out on social interactions. Furthermore, *boredom proneness*, or the tendency to get bored easily, is also a significant factor reinforcing this behavior. According to Amiro and Laka (2023) and Yadav et al. (2023), individuals prone to boredom tend to seek external stimulation through social media, thereby strengthening the influence of FOMO on *phubbing*.

Several previous studies have shown that Fear of Missing Out (FOMO) has a positive influence on phubbing behavior (Ali et al., 2023; Hura et al., 2021; Franchina et al., 2018). However, most of these studies only highlight the direct relationship between the two variables without considering internal psychological factors that can strengthen or weaken this influence. On the other hand, research on *boredom proneness* is still limited to its role as a direct predictor of phubbing behavior (Amiro & Laka, 2023; Meng & Xuan, 2023), not as a moderator. Furthermore, studies in the Indonesian context, particularly on Gen-Z social media users in Yogyakarta, are still very limited. Therefore, this study seeks to fill this gap by examining the role of *boredom proneness* as a moderator in the relationship between FOMO and *phubbing behavior*. This study aims to analyze the influence of FOMO on *phubbing* behavior and examine the moderating role of *boredom proneness* among Gen-Z social media users in Yogyakarta. Theoretically, this research is expected to expand the application of *Self-Determination Theory* in the context of digital behavior, while practically, the results of this research can contribute to the development of healthier social media usage strategies among the younger generation.

Based on this theoretical basis, the researcher formulated a major hypothesis that there is an influence of *Fear of Missing Out* (FOMO) on *phubbing behavior* which is moderated by *Boredom Proneness* in social media users among generation Z. In addition, two minor hypotheses were also formulated, namely (1) there is an influence between *Fear of Missing Out* (FOMO) on *phubbing* behavior, and (2) there is an influence between *Boredom Proneness* on *phubbing* behavior in social media users among generation Z.

Method

This study is a quantitative study with a correlational design, which aims to determine the relationship between Fear of Missing Out (FOMO) and phubbing behavior, with boredom proneness as a moderator variable. The variables in this study consist of an independent variable, namely FOMO, a dependent variable, namely phubbing behavior, and a moderator variable, namely boredom proneness.

The population in this study is Generation Z in Yogyakarta, totaling 870,587 people. The sampling technique used purposive sampling with the respondent criteria being active social media users aged 13–28 years. Based on calculations using the Slovin formula with a margin of error of 5%, the number of samples that should have been obtained was 400 respondents. However, due to the limited time for data collection which only lasted for one month, the actual number of respondents collected was 215 people.

Construct validity in this study was maintained through the correspondence between the indicators and the conceptual definition of each variable, as well as convergent validity testing using inter-item correlation analysis. Furthermore, to ensure the credibility and feasibility of the instrument, content validation was conducted through *expert judgment* by two academics in the field of social psychology and communication, and a pilot test was conducted on 45 respondents with characteristics similar to the study population, namely

Generation Z aged 13–28 years, male and female, active social media users in Yogyakarta. This pilot test aimed to ensure the clarity of the item wording, the suitability of the social context, and the reliability and construct validity of the instruments used. The pilot test results showed that all instruments met the validity and reliability criteria, making them suitable for use in primary data collection.

Data collection was conducted using a 4-point Likert scale questionnaire, where respondents were asked to provide answers ranging from 1 (strongly disagree) to 4 (strongly agree). The research instrument consisted of three scales, namely the Phubbing Behavior Scale, the Fear of Missing Out (FOMO) Scale, and the Boredom Proneness Scale. The three instruments were adapted from scales that have been used in previous studies and then modified contextually to suit the characteristics of Gen-Z respondents in Yogyakarta. Modifications were made by adjusting the wording of the items to be more relevant to the current context of social media use, reviewing the validity of the content through expert judgment, and conducting instrument trials to ensure validity and reliability were still met.

The collected data were then analyzed using SPSS. The analysis stages included instrument validity and reliability tests, classical assumption tests, including normality, linearity, multicollinearity, and heteroscedasticity, and path analysis to determine the direct effect of FOMO on phubbing behavior and the moderating role of boredom proneness in this relationship.

Results and Discussion

Validity is an index that indicates the extent to which a measuring instrument can actually measure what it is supposed to measure. Validity testing is conducted to determine whether a questionnaire is valid. A questionnaire is considered valid if each question is able to reveal information in accordance with its measurement objectives (Ghozali, 2016). In this study, an item is considered valid if its item value is greater than 0.294. The significance level used in this study is 5%, with a total sample of 45 people.

Validity and reliability tests were conducted on three research scales, namely the Phubbing scale, Fear of Missing Out (FOMO), and Boredom Proneness. The validity test was conducted using *Corrected Item-Total Correlation analysis* with a minimum limit of ≥ 0.294 . Items that had values below the criteria were eliminated gradually until all remaining items were valid. Reliability was measured using the Cronbach's Alpha coefficient, with good reliability criteria if the alpha value was ≥ 0.700 .

Table 1.1 Reliability of the *Phubbing Scale*

Reliability of the <i>Phubbing Scale</i>	
Cronbach's Alpha	N Item
.983	22

On a scale *Phubbing*, validity testing was conducted in three rounds. Of the initial 28 items, 6 items were dropped (items 8, 10, 15, 19, 23, and 27) because they had correlation values below 0.300. A total of 22 items were declared valid with *Corrected Item-Total Correlation values* ranging from 0.356 to 0.931. The results of the reliability test showed a Cronbach's Alpha value of 0.983, which indicates very high reliability.

Table 1.2 Reliability of the *Fear of Missing Out Scale*

<i>the Fear of Missing Out Scale</i>	
Cronbach's Alpha	N Item
.980	21

On the FOMO scale, of the initial 24 items, 3 were dropped (items 11, 21, and 22), leaving 21 valid items with correlation values ranging from 0.337 to 0.929. The Cronbach's Alpha value was 0.980, indicating very high reliability.

Table 1.3 Reliability of the *Boredom Proneness Scale*

Reliability of the <i>Boredom Proneness Scale</i>	
Cronbach's Alpha	N Item
.967	19

In the *Boredom Proneness* scale, of the 24 initial items, 5 items were dropped (items 7, 11, 15, 21, and 22), leaving 19 valid items with correlation values ranging from 0.441 to 0.897. The Cronbach's Alpha value of 0.967 indicates excellent reliability. Overall, the three scales meet the validity and reliability criteria, making them suitable for use in further research data collection.

Table 1.4 Frequency Distribution of Gender

		Frequency	Present
Valid	Male	89	41.40%
	Female	126	58.60%
Total		215	100%

Based on this study, the frequency distribution of respondent characteristics, including age and gender, showed that the percentage of male participants was 41.40 %, or approximately 89 men. Meanwhile, the percentage of female participants was 68.60 %, or approximately 126 women.

Table 1.5 Age Frequency Distribution

	Frequency	Present
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Valid	13 – 20	90	41.86%
	21 – 28	125	58.14%
	Total	215	100%

Based on this research, the frequency distribution of the percentage of participants aged 13-20 was 41.89% or around 90 respondents and the percentage aged 21-28 was larger, namely 58.14% or around 125 people.

Data analysis in this study was conducted through several stages, namely descriptive analysis to obtain a general overview of respondent characteristics regarding the research variables, classical assumption testing to ensure model feasibility, and using a combination of path analysis and Moderated Regression Analysis (MRA). Path analysis was used to test the direct influence between variables, while MRA was used to test the interaction between FOMO and Boredom Proneness in predicting phubbing behavior. The results of both provide a comprehensive understanding of the mechanisms and psychological conditions that influence phubbing behavior among Gen-Z social media users.

Table 1.6 Descriptive Distribution of *Phubbing*, *FOMO* and *Boredom Proneness Scales*

Descriptive Statistics					
	N	Mean	Standard Deviation	Minimum	Maximum
PHUBBING (Y)	215	67.61	6,653	44	79
FOMO (X)	215	64.16	5,482	50	77
BOREDOM PRONENESS (M)	215	62.34	7,061	29	71

Based on the descriptive test results, it can be concluded that respondents in this study tend to have a high level of Phubbing with an average value of 67.61, a high FOMO with an average value of 64.16, and Boredom Proneness in the moderate to high category with an average value of 62.34. This indicates that the behavior of ignoring social interactions for the sake of mobile phone use, the fear of missing out on information, and the tendency to get bored easily are prominent characteristics of Gen-Z social media users in Yogyakarta. Theoretically, this finding is in line with the social compensation theory and research by Przybylski et al. (2013) and Chotpitayasunondh & Douglas (2016) which explains that FOMO encourages individuals to be more attached to social media. Meanwhile, high boredom (Eastwood et al., 2012) strengthens this drive, making mobile phone use an escape from emotional discomfort. In the moderation test stage, this study uses the Moderated Regression Analysis (MRA) approach to test the interaction between FOMO and Boredom Proneness. The results show that Boredom Proneness strengthens the influence of

FOMO on Phubbing, so that the moderation that occurs is an interaction, not just a combined effect.

Table 1.7 Normality Test
One-Sample Kolmogorov-Smirnov Test

			Unstandardized Residual
N			215
Normal Parameters ^{a,b}	Mean		.0000000
	Standard Deviation		6.10231191
Most Extreme Differences	Absolute		.087
	Positive		.045
	Negative		-.087
Test Statistics			.087
Asymp. Sig. (2-tailed)			.000 ^c
Monte Carlo Sig. (2-tailed)	Sig.		.074 ^d
	99% Confidence Interval	Lower Bound	.067
		Upper Bound	.080

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

The results of the normality test show that the Monte Carlo Sig. value of 0.074 is above the 0.05 significance limit. This indicates that the residuals in the regression model have a distribution close to normal. This condition indicates that the data distribution does not deviate significantly from the assumption of normality, thus the model can provide more accurate and reliable estimation results.

Table 1.8 Linearity Test of *Fear of Missing Out* (FOMO)

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Phubbing (Y) * FOMO (X)	Between Groups	(Combined)	216,234	35	61,892	.688	.204
		Linearity	761,807	1	761,807	25,133	.000
		Deviation from Linearity	1974.427	34	58,071	.646	.934
	Within Groups		16097.700	179	89,931		
	Total		18263.935	214			

Boredom Proneness Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Phubbing (Y) * Boredom Proneness (M)	Between Groups	(Combined)	2626.359	33	79,587	.921	.295
		Linearity	152,055	1	152,055	10,776	.003
		Deviation from Linearity	2559.305	32	79,978	.926	.586
	Within Groups		15637.575	181	86,395		
	Total		18263.935	214			

The results of the linearity test indicate that both *Fear of Missing Out* (FOMO) and *Boredom Proneness* have a significant and linear relationship with *phubbing behavior*. The significance value of $p < .001$ for the relationship between FOMO and phubbing and $p = .003$ for the relationship between boredom proneness and phubbing indicates that both variables are consistently positively correlated with an individual's tendency to phubbing. This finding strengthens the theoretical assumption that individuals with high levels of FOMO tend to check their phones more frequently during social interactions, due to a strong urge to stay connected and obtain information updates from the online environment. Similarly, individuals with a tendency to get bored easily exhibit similar behavior as a form of compensation for the lack of social or cognitive stimulation in the real world. This linear relationship pattern confirms that an increase in either factor either FOMO or the tendency to get bored easily is directly associated with an increase in phubbing behavior.

Table 1.10 Multicollinearity Test

Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	58,363	6,697		8,715	.000		
	FOMO (X)	.139	.086	.110	1,609	.109	.988	1,012
	Boredom Proneness (M)	-.083	.079	-.072	-1,058	.291	.988	1,012

a. Dependent Variable: Phubbing (Y)

The results of the multicollinearity test show that all variables in the regression model have a *Tolerance value* of 0.988 and a *Variance Inflation Factor* (VIF) value of 1.012. This

value is far below the recommended limits, namely *Tolerance* > 0.10 and *VIF* < 10. This condition indicates that each independent variable in the study is not excessively correlated with each other, so that each predictor contributes uniquely to the dependent variable without information redundancy. In other words, the variation explained by one independent variable does not overlap significantly with the variation explained by the other independent variables.

Table 1.11 Heteroscedasticity Test
Coefficients ^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	5.205	3,966		1,312	.191
FOMO (X)	.066	.051	.089	1,299	.195
Boredom Proneness (M)	-.034	.047	-.050	-.732	.465

a. Dependent Variable: ABS_RES

The heteroscedasticity test results show that the significance value for the *Fear of Missing Out* (FOMO) variable is 0.195 and for the *Boredom Proneness* variable is 0.465. Both values are greater than 0.05, indicating that the regression model does not experience heteroscedasticity symptoms. Thus, the residual variance in the model can be said to be homogeneous or constant across the range of predictor values. This condition indicates that the prediction error (error term) does not increase or decrease systematically with changes in FOMO or Boredom Proneness values, so the model meets the classical assumptions regarding homoscedasticity. Therefore, this model can be declared suitable for use in further analysis such as mediation analysis or path analysis, with a high level of confidence in the stability of the estimates and the validity of its statistical inferences.

Path Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.778 ^a	.705	.686	4,211

a. Predictors: (Constant), FOMO (X)

Coefficients ^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

1	(Constant)	4.132	3,372		1,077	.000
	FOMO (X)	.265	.086	.302	3,504	.004

a. Dependent Variable: Phubbing (Y)

Regression results indicate that both *Fear of Missing Out* (FOMO) and *Boredom Proneness* contribute positively and significantly to phubbing behavior, with FOMO acting as the dominant predictor ($\beta = 0.302$, $p < .001$) compared to boredom proneness ($\beta = 0.172$, $p < .01$). Interpretation of standardized coefficients indicates that a one-standard-deviation variation in FOMO is associated with an increase of approximately 0.30 standard deviations in phubbing, while a one-standard-deviation increase in boredom proneness is associated with an increase of approximately 0.17 standard deviations. These results reflect that phubbing is not simply excessive mobile phone use behavior, but rather a manifestation of a more fundamental social need—namely the desire to be recognized, accepted, and constantly engaged in digital social environments. When the drive to stay connected becomes dominant, individuals may unconsciously sacrifice the quality of face-to-face interactions in order to maintain online engagement. Meanwhile, boredom proneness appears to act as a supporting factor that encourages individuals to seek quick social stimulation through digital media. These findings support the theoretical framework that views phubbing as a behavior driven by both social-motivational drive (FOMO) and stimulation needs (boredom), where social drive appears to be stronger in driving the behavior of ignoring the interlocutor.

Moderated Regression Analysis (MRA) Test

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	
1	(Constant)	47,525	5,528		8,598
	BP	.115	.072	.108	1,608
	FOMO	.218	.069	.212	3,159

a. Dependent Variable: PHUBBING

The results showed that Fear of Missing Out (FOMO) had a positive and significant effect on phubbing behavior ($B = 0.218$, $\beta = 0.212$, $p = 0.002$). This indicates that the higher the level of FOMO, the greater the tendency of individuals to ignore face-to-face interactions in favor of staying connected digitally. This finding supports previous research that suggests FOMO drives individuals to continuously monitor online social activities to fulfill their needs for connectedness and social recognition.

In contrast, Boredom Proneness had a positive but insignificant effect ($B = 0.115$, $\beta = 0.108$, $p = 0.109$). This means that boredom is not the primary factor in triggering phubbing

behavior, but rather plays an indirect role through increased FOMO. Thus, phubbing is more triggered by social and emotional drives than by boredom alone.

Methodologically, the classical assumptions were met ($VIF = 1.012$; $p > 0.05$), indicating that the regression model was feasible and stable. Overall, it can be concluded that FOMO is the dominant predictor of phubbing behavior, while boredom proneness only acts as a supporting factor that weakens self-control over mobile phone use.

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	61,065	4,049		15,083	.000
BP	-.119	.112	-.111	-1,062	.290
FOMOXBP	.004	.001	.319	3,039	.003

a. Dependent Variable: PHUBBING

The analysis results show that the interaction between Fear of Missing Out (FOMO) and Boredom Proneness has a positive and significant effect on phubbing behavior ($B = 0.004$, $\beta = 0.319$, $t = 3.039$, $p = 0.003$). In contrast, BP does not directly have a significant effect on phubbing ($B = -0.119$, $\beta = -0.111$, $t = -1.062$, $p = 0.290$). This means that the tendency to get bored easily does not directly encourage phubbing, but when combined with high levels of FOMO, phubbing behavior increases significantly.

Conceptually, these results confirm a moderating effect where Boredom Proneness strengthens the influence of FOMO on phubbing. Individuals who are easily bored but do not have high FOMO may not be driven to constantly check their phones. However, when boredom is accompanied by a strong social need to stay connected and receive updates (high FOMO), the urge to use the phone during social interactions becomes increasingly difficult to control. Thus, phubbing can be understood as a form of psychological compensation for two conditions: the inability to manage boredom and an excessive need for social connectedness.

Path Diagram

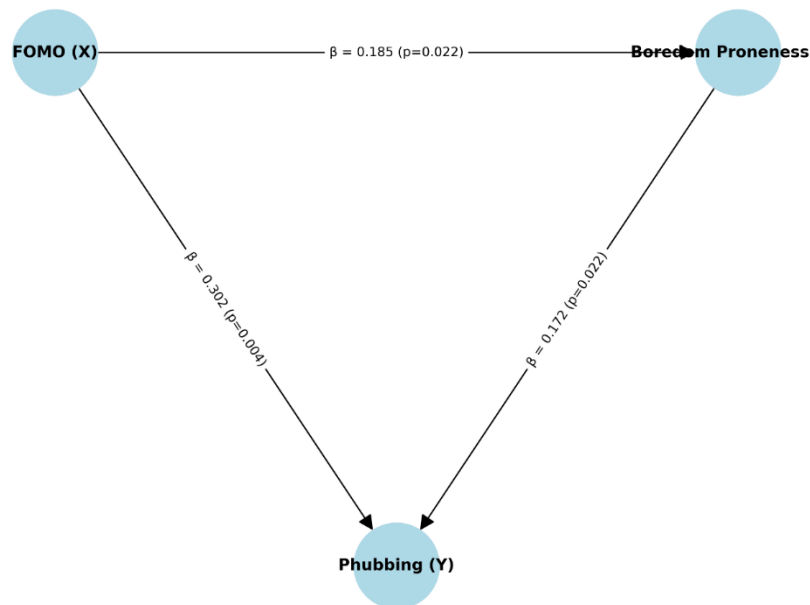


Figure 1.1 Path Diagram

Based on the results of the path analysis, it was found that Fear of Missing Out (FOMO) had a positive and significant effect on phubbing behavior ($\beta = 0.302$; $p = 0.004$), while Boredom Proneness (BP) also showed a positive effect ($\beta = 0.172$; $p = 0.022$). This indicates that individuals with high levels of FOMO are more likely to ignore face-to-face interactions in favor of digital connectedness, and the tendency to get bored easily reinforces this behavior.

A Moderated Regression Analysis (MRA) test showed that the interaction between FOMO and BP significantly affected phubbing ($\beta = 0.319$; $p = 0.003$). This means that although BP does not directly trigger phubbing, individuals with high FOMO who are also easily bored will use their phones more frequently during social interactions. Psychologically, boredom acts as an *emotional catalyst* that accelerates reactions to FOMO, making phones a form of escape and a means of instantly fulfilling the need for social connectedness.

Theoretically, these results support Self-Determination Theory (SDT) (Deci & Ryan, 2000); (Maknun et al., 2023), which explains that FOMO arises due to unmet basic psychological needs—especially the need for social connectedness . Boredom Proneness reinforces this effect because individuals who get bored easily tend to have weak self-regulation and seek quick stimulation through digital activities (Eastwood et al., 2012). In the context of Gen-Z Yogyakarta, the combination of high digital connectivity and an all-online social environment makes this urge even stronger.

Practically, these findings confirm that phubbing behavior is the result of a complex interaction between external and internal psychological needs. Therefore, interventions to

reduce phubbing need to emphasize two things: (1) increasing digital literacy to manage FOMO urges, and (2) developing coping strategies for boredom so that individuals do not rely on mobile phones as their sole source of social stimulation.

Conclusion

Based on the data analysis, the levels of Fear of Missing Out (FOMO), phubbing, and boredom proneness among Generation Z in Yogyakarta are relatively high. All classical assumptions were met, thus the regression model was deemed suitable for further analysis. The results of the path and regression analyses indicated that FOMO had a positive and significant effect on phubbing behavior, while boredom proneness strengthened the relationship. Thus the major hypothesis was accepted. These results indicate that phubbing behavior is primarily triggered by social and emotional urges to stay digitally connected, which are then reinforced by individuals' tendency to easily feel bored.

Theoretically, these findings support Self-Determination Theory (Deci & Ryan, 2000), which suggests that dissatisfaction with basic psychological needs especially the need for social connectedness can trigger compensatory behaviors such as phubbing. Boredom proneness amplifies this effect by encouraging individuals to seek external stimulation through mobile phones. Thus, phubbing can be understood as a response to two psychological factors: unmet social needs and low boredom tolerance.

Practically, these results imply the importance of developing interventions based on digital literacy and self-regulation to help Gen Z manage FOMO and boredom without relying on excessive mobile phone use. Psychosocial approaches such as *mindfulness training*, limiting digital notifications, and improving the quality of face-to-face interactions can be preventative strategies.

This study has several limitations. First, the actual number of respondents only reached 215 out of the target of 400 due to the limited timeframe of one month for data collection, so the results cannot be fully generalized. Second, the *cross sectional design* does not allow for in-depth investigation of causal relationships. Therefore, further research is recommended to use longitudinal or experimental designs and expand the regional context and include other psychological variables, such as self-control, intensity of social media use, or digital well-being, to deepen our understanding of phubbing behavior among the younger generation.

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