



Boredom Proneness and Communication Associated with Adolescent Phubbing

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Abstract. General Background: The increasing use of smartphones has led to the widespread occurrence of phubbing behavior among adolescents, disrupting face-to-face social interactions. Specific Background: Adolescents often prioritize smartphone engagement during interpersonal encounters, which may reduce communication quality and social connection. Knowledge Gap: Previous studies have examined boredom proneness and interpersonal communication separately in relation to phubbing, but limited research has addressed their simultaneous relationship. Aims: This study aims to determine the relationship between boredom proneness and interpersonal communication with phubbing among adolescents in Sidoarjo. Results: Using a quantitative multiple correlational approach with 388 adolescents, the findings indicate a significant positive relationship between boredom proneness and phubbing ($r = 0.463$), and a significant negative relationship between interpersonal communication and phubbing ($r = -0.217$). Simultaneously, both variables are significantly associated with phubbing ($F = 56.107$; $p < 0.001$), explaining 22.6% of the variance, with boredom proneness contributing more dominantly than interpersonal communication. Novelty: This study provides empirical evidence of the simultaneous relationship between boredom proneness and interpersonal communication with phubbing in adolescents, highlighting their combined role. Implications: The findings suggest the importance of managing boredom and strengthening interpersonal communication skills to reduce phubbing behavior and improve adolescent social interaction quality.

Keywords: Phubbing, Boredom Proneness, Interpersonal Communication

1 Introduction

Adolescence is a transitional period from childhood to adulthood that involves cognitive, biological, and socio-emotional changes. Adolescence consists of three stages: early adolescence (ages 12-15), middle adolescence (ages 15-18), and late adolescence (ages 18-21)[1]. Adolescence is a stage of human development with cognitive changes involving thoughts and intelligence, biological changes involving physical changes such as increased height, the appearance of Adam's apples, and socio-emotional changes involving social relationships, forming relationships, emotional changes, and personality. In their development, adolescents must be able to adjust to the changes that occur[2].

Adolescence is a time when individuals build relationships and interact within their social environment. At this age, children feel that they are on an equal footing with older people, especially in terms of adapting to elements within society such as

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language and social status. Changes in the adolescent brain allow them to more easily engage in social interactions during their development. Adolescents make adjustments to achieve patterns of socialization similar to those of adults. This adjustment is difficult due to the strong influence of peer groups, changes in social behavior, the formation of new social groups, new values in choosing friends, providing social support and rejection, and the selection of leaders. The confidence that adolescents gain when they successfully build social relationships can be severely damaged if they experience rejection from the group. This can be a painful experience, leading them to try to conform to their peers.[3] .

Adolescent development involves tasks and responsibilities that focus on developing social responsibility and socialization with their environment, building good relationships with peers of different genders, achieving social roles, and following the norms and ethics that apply in society[4] . However, in reality, adolescents prefer to access the internet, especially social media. They open notifications, reply to messages, and explore posts that they find interesting, thereby creating their own world that they can hold in their hands. With easy access, they can use it anywhere and anytime, which makes them focus on using social media and ignore their surroundings[5] . Teenagers are busy using their *smartphones* and often forget their responsibilities as students, such as studying for exams and doing school assignments given by teachers[4] . Teenagers are preoccupied with the social media on their *smartphones*; even a slight vibration can distract them, illustrating the tendency of teenagers to prefer communication through *smartphones* over direct interaction, a phenomenon known as *phubbing*. [6]

Phubbing comes from two words, namely *phone* and *snubbing*, which means ignoring or belittling others, resulting in a loss of social interaction[7] . *Phubbing* is behavior in which a person ignores the person they are talking to because they are too focused on their gadget or *smartphone*[8] . *Phubbing* is an act of prioritizing *smartphones* over focusing on interacting with others[9] . *Phubbing* is the behavior of individuals who focus on their smartphones when interacting with others, thereby creating distance in interpersonal communication[5] . Characteristics of *phubbing* behavior include: 1) Individuals who engage in *phubbing* tend to be less active in social settings because their attention is focused on *their smartphone*. 2) Individuals tend to be more focused on their smartphone and ignore their conversation partner during interactions.[10] . There are two aspects of *phubbing*: (1) communication disturbance (*Communication Disturbance*), which is , where the use of a phone diverts an individual's attention, thereby disrupting the ongoing face-to-face communication. This disturbance can hinder the flow of conversation and reduce the quality of interaction between individuals. (2) *Phone obsession*, characterized by a strong urge to continue using a *smartphone* even while interacting directly with others, indicates a high level of dependence on the phone and a decrease in attention to the surrounding social environment.[8] . The main factors influencing *phubbing* include *smartphone addiction*, *internet addiction*, *social media addiction*, and *game addiction*[8] .

The study conducted by Amiro and Laka entitled "The Effect of Boredom Proneness on *Phubbing* Behavior- s Among Adolescents in Sekarmojo Village, Purwosari District, Pasuruan Regency" was conducted on 88 adolescents and found that 19 adolescents (24.5%) were in the very high category, 35 adolescents (39.5%) were in the high category, moderate category of 27 or 28%, low category of 7 or 8%, and very low category of 0 or 0%, which means that the majority of adolescents tend to focus on using their cell phones when interacting directly[11] . Another study showed that most adolescents engage in *phubbing*, with 51 individuals (51%) doing so and 49 individuals

(49%) not engaging in *phubbing*. This illustrates that adolescents tend to use *smartphones* during interactions, which can disrupt direct communication with those around them[5] .

Based on a preliminary survey conducted in July 2025 on 64 respondents who were teenagers in Sidoarjo aged 12-21 years old, with data collected through *Google Forms*, 20 teenagers (31.3%) were categorized as very high, 21 teenagers (32.8%) were categorized as high, 18 teenagers (28.1%) were categorized as moderate, low category of 4 adolescents, or 6.3%, and very low category of 1 adolescent, or 1.6%. This shows that they tend to use *smartphones* when interacting with other people, always reply to messages when interacting with their conversation partners, and feel restless and anxious when not holding their *smartphones*, stating that *smartphones* are part of their lives, which can lead to emotional dependence. Based on Karadag et al.'s aspects, this behavior reflects the aspect of communication disruption (), which is when the use of cell phones distracts individuals, thereby disrupting face-to-face communication. This disruption can hinder the flow of conversation and reduce the quality of interaction between individuals (2) obsession with mobile phones, characterized by a strong urge to continue using *smartphones* even when interacting directly with other people, a condition that indicates a high dependence on mobile phones and a decrease in attention to the surrounding social environment[8] . The phenomenon of *phubbing* arises from dependence on *smartphones* and the internet. This trend is increasing day by day and ultimately changing the social patterns of society. The change that can be seen is that during social interactions, people are more focused on their smartphones than on communicating with the person they are talking to or building relationships with their surroundings[12] .

Phubbing among teenagers is becoming increasingly worrying, along with the increasing use of *smartphones* in everyday life. *Smartphones* can connect us with people far away, but they can also distance us from those closest to us. Teenagers who are accustomed to *phubbing* tend to be insensitive to their surroundings, lack confidence when communicating directly, and miss opportunities to form new relationships[13] . The negative effects of *phubbing* include reduced conversation quality, low relationship satisfaction, interpersonal conflict, feelings of social exclusion that can trigger stress and negative emotions, and even a decline in mutual trust and negative perceptions of others. Additionally, *phubbing* also has psychological effects, causing depression, anxiety, low self-esteem, lack of empathy, loss of self-confidence, and a decrease in prosocial behavior. In some cases, *phubbing* can cause someone to act rudely and trigger aggressive behavior toward those around them[14] .

Phubbing occurs because someone is unable to use technology wisely (excessive use of *smartphones*). This can be attributed to someone experiencing *boredom proneness* (a tendency to feel bored) and a lack of interest in the conversation being held by the other person. *Boredom proneness* is one of the factors of *phubbing* behavior. Individuals who tend to feel bored may easily exhibit *phubbing* behavior because they seek stimuli or stimulation, such as looking for more interesting entertainment through their smartphones to overcome their boredom, thereby avoiding social interaction by ignoring the people around them and focusing on their smartphones[11] . *Boredom proneness* is a concept where individuals have a tendency or vulnerability to experience boredom due to a lack of internal or external stimulation[15] . *Boredom proneness* is a personality characteristic that describes an individual's tendency to experience boredom[16] . *Boredom proneness* is a tendency to feel bored that reflects difficulty in regulating attention and participating in meaningful activities[17] . *Boredom proneness*

can be defined as a condition in which a person experiences a low level of excitement and satisfaction, which usually arises due to an environment or daily situation that does not provide sufficient stimulation[11]. *Boredom proneness* is an emotional tendency in which individuals feel empty and powerless in responding to internal and external stimuli, resulting in their needs not being adequately met[18]. The aspects of *boredom proneness* include *external stimulation* and *internal stimulation*[15].

On the other hand, interpersonal communication can also lead to *phubbing*. *Smartphones* are often used as a way to avoid direct interaction that is considered unpleasant. According to Auster's research, *phubbing* occurs because individuals feel uncomfortable when communicating face-to-face, so they choose to focus on their smartphones and distance themselves from the real situation. When in an emotional state or feeling socially uncomfortable, people tend to use *smartphones* as a form of escape[19]. Interpersonal communication is a process in which messages are conveyed from one individual to another or to a small group of people. This process not only involves the transfer of messages, but also creates an impact and opens up opportunities for feedback, which is very important for effective communication[8]. Interpersonal communication is the process of conveying and receiving messages that take place directly between two or more people. Through face-to-face communication, messages can be conveyed clearly and the recipient has the opportunity to respond immediately, creating a reciprocal interaction.[20]. Interpersonal communication is the exchange of messages between two people or a small group that has a certain impact and involves feedback[19]. Aspects of interpersonal communication include openness, empathy, support, a positive attitude, and equality[8].

Research on *boredom proneness* and interpersonal communication on *phubbing* behavior has been conducted by Hafizah et al. in a study titled "Self-Control and Interpersonal Communication on *Phubbing* Behavior Among Students at Mulawarman University Samarinda" aged 18-25 years, which showed the influence of interpersonal communication on *phubbing*[19]. Further research was conducted by Nababan et al. with the title "The Influence of FOMO and *Boredom Proneness* on *Phubbing* Behavior among *Gen Z Social Media* Users in Karawang," which found that *boredom proneness* has an influence on *phubbing*[21]. Furthermore, the study "The Influence of *Boredom Proneness* on *Phubbing* Behavior Among Adolescents in Sekarmoyo Village, Purwosari District, Pasuruan Regency" found that there is a positive influence of *boredom proneness* on *phubbing*[11]. However, these studies only examined each variable partially and did not explain the simultaneous relationship between *boredom proneness* and interpersonal communication with *phubbing*. Therefore, this study offers something new by examining the simultaneous relationship between *boredom proneness* and interpersonal communication with *phubbing* among adolescents. The purpose of this study is to determine the relationship between *boredom proneness* and interpersonal communication with *phubbing* among adolescents.

2 Method

This study uses a quantitative approach with a multiple correlational method. The multiple correlational research method is an approach used to identify relationships between three or more variables, when two or more independent variables are simultaneously associated with a dependent variable[22]. There are three variables in this study, namely independent variables (*Boredom Proneness* and Interpersonal

Communication) and a dependent variable (*Phubbing*). The population in this study consists of adolescents in Sidoarjo. Based on data from the Sidoarjo Central Statistics Agency, there are 471,633 adolescents aged 12-21[23] . The researcher used the Krejcie-Morgan table with a 5% error rate, which resulted in 388 respondents as the research sample. The sampling technique used was accidental sampling. This technique is a method of determining samples based on chance, meaning that anyone who happens to be encountered by the researcher can be used as a sample, provided that the person encountered is deemed suitable as a data source[24] .

Data collection techniques involved distributing questionnaires to a research sample consisting of three scales: *phubbing*, *boredom proneness*, and interpersonal communication. The scale used for *phubbing* was adapted from an instrument developed by Romadon, consisting of 10 items referring to aspects of communication disruption and obsession with mobile phones . The reliability value after testing was 0.722[25] . The scale used for *boredom proneness* (*BPS – SF*) was adapted from an instrument developed by Herman. S refers to two aspects , namely *external stimulation* and *internal stimulation* , consisting of 12 items. The reliability value after testing was 0.671[26] . The interpersonal communication scale used was adapted from an instrument developed by Romadon consisting of 25 items referring to five aspects, namely openness, empathy, support, positive attitude, and equality. After validity testing, one item was discarded, resulting in 24 items used for the study. The reliability value after testing was 0.740[25] . To analyze the data obtained, the researcher used SPSS software to examine the relationship between *boredom proneness* and interpersonal communication with *phubbing* in adolescents. The researcher used assumption tests such as descriptive statistics, normality tests, multicollinearity assumption tests, and multiple correlation tests.

3 Results and Discussion

3.1 Results

Table 1. Categorization of Each Variable

Variable	Category	Frequency	Percentage
<i>Phubbing</i>	Low	50	13
	Medium	282	73
	High	56	14
<i>Boredom Proneness</i>	Low	56	14
	Moderate	274	71
	High	58	15
Interpersonal Communication	Low	50	13
	Moderate	256	66
	High	82	21

Based on the table above, the *phubbing* variable was categorized as low in 50 adolescents (13%), moderate in 282 adolescents (73%), and high in 56 adolescents (14%). For the *boredom proneness* variable, 56 adolescents (14%) were categorized as

low, 274 adolescents (71%) as moderate, and 58 adolescents (15%) as high. Meanwhile, for the interpersonal communication variable, 50 adolescents were in the low category (13%), 256 adolescents were in the medium category (66%), and 82 adolescents were in the high category (21%).

Table 2. Categories Based on Gender

Gender	Frequency	Percentage
Female	237	61.1
Men	151	38.9

Table 3. Characteristics of respondents based on gender

Category	Gender	Frequency	Percentage
Low	Male	18	36
	Female	32	64
	Total	50	100
Moderate	Male	116	41.1
	Female	166	58.9
	Total	282	100
Height	Male	17	30.4
	Female	39	69.6
	Total	56	100

Based on Table 2 above, the majority of respondents in this study were female, namely 237 people (61.1%), while male respondents numbered 151 people (38.9%). Based on Table 3, the characteristics of respondents based on gender show that female adolescents engage in *phubbing* at a moderate level, with 166 (58.9%) compared to male adolescents, with 116 (41.1%).

Table 4. Descriptive Statistics

	Minimum	Maximum	Mean	Standard Deviation
<i>Phubbing</i>	11	40	22.781	5.010
<i>Boredom Proneness</i>	15	46	29.3041	4,553
Interpersonal Communication	46	92	71.7320	7,557

Based on the results of descriptive statistical analysis of 388 adolescents, the average *phubbing* score was 22.781 with a standard deviation of 5.010, a minimum score of 11, and a maximum score of 40. For *boredom proneness*, the mean score was 29.304 with a standard deviation of 4.553, with a minimum score of 15 and a maximum score of 46.

Meanwhile, the mean interpersonal communication score was 71.732 with a standard deviation of 7.557, with a minimum score of 46 and a maximum score of 92.

Table 5. Normality Test

	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
Unstandardized Residual	0.039	388	0.194

a. Lilliefors Significance Correction

Based on the Kolmogorov–Smirnov normality test of $0.194 > 0.05$, the residuals are declared to be normally distributed, so it can be concluded that the normality assumption is fulfilled.

Table 6. Multicollinearity Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	14.032	2.949		4,758	0		
	Boredom Proneness	0.479	0.051	0.436	9.422	0.000	0.941	1.063
	Interpersonal Communication	-0.074	0.031	-0.111	-2.409	0.016	0.941	1.063

a. Dependent Variable: Phubbing

Based on Table 6, it can be seen that the VIF value obtained for the variables of *boredom proneness* and interpersonal communication is $1.063 < 10$. This indicates that there is no multicollinearity in the data, thus it can be concluded that the regression model is suitable for use and the assumption of non-multicollinearity is fulfilled.

Table 7. F Test (Simultaneous)

Model		ANOVA ^a				
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.192	2	1096.190	56,107	.000 ^b
	Residual	7,522	385	19,538		
	Total	9,714	387			

a. Dependent Variable: Phubbing
b. Predictors: (Constant). Interpersonal Communication. Boredom Proneness

Based on Table 7, the F value is 56.107 with a significance level of 0.000, which means that there is a significant relationship () between *boredom proneness* (X1) and interpersonal communication (X2) with *phubbing* (Y).

Table 8. Coefficient of determination

Model Summary				
Model	R	R Square	Adjusted R-Square	Standard Error of the Estimate
1	.475 ^a	0.226	0.222	4.420

a. Predictors: (Constant). Interpersonal Communication.
Boredom Proneness

Based on Table 8, the coefficient of determination (R Square) is 0.226. This indicates that *boredom proneness* and interpersonal communication explain 22.6% of the variance in *phubbing*. Meanwhile, the remaining 77.4% is explained by other factors outside the scope of this study.

Table 9. Coefficient of Determination for Each Variable

Variable	R	R square	Adjusted R-Square	Standard Error of the Estimate
<i>Boredom Proneness</i>	.463 ^a	.214	.212	4.448
<i>Interpersonal Communication</i>	.217 ^a	.047	.045	4,897

Based on the respective determination coefficients, *boredom proneness* has an R value of 0.463, indicating a moderate positive relationship with *phubbing*, and an R Square value of 0.214, indicating that *boredom proneness* contributes 21.4% to *phubbing*. Meanwhile, interpersonal communication has an R value of 0.217, indicating a weak relationship with *phubbing*, with an R Square value of 0.047, indicating that interpersonal communication contributes 4.7% to *phubbing*. This shows that the variable of *boredom proneness* has a greater and more dominant contribution than the variable of interpersonal communication.

Table 10. Correlation Analysis

Variable	r	Sig
<i>Phubbing - Boredom Proneness</i>	0.463	0
<i>Phubbing - Interpersonal Communication</i>	-0.217	0.000

Based on the correlation analysis results, there is a positive relationship between *boredom proneness* and *phubbing* with a correlation coefficient of $r = 0.463$ and sig 0.000, which means that the higher the *boredom proneness*, the higher the *phubbing* carried out by adolescents. Furthermore, there is a negative relationship between interpersonal communication and *phubbing* with a correlation coefficient of $r = -0.217$ and sig 0.000, which means that the better the quality of interpersonal communication, the lower the *phubbing* among adolescents.

3.2 Discussion

The results of this study show that *boredom proneness* and interpersonal communication simultaneously have a significant relationship with *phubbing* among adolescents. The F value shown is 56.107 with a significance level of $0.000 < 0.05$, which indicates that H1 is accepted and H0 is rejected, meaning that there is a significant relationship between *boredom proneness* and interpersonal communication with *phubbing*. To determine the effective contribution of *boredom proneness* and interpersonal communication to *phubbing* simultaneously, we looked at the results based on an R value of 0.475 and an R square value of 0.226, which means that the variance of *boredom proneness* and interpersonal communication contributed 22.6% and 77.4%, respectively, with the rest being influenced by other variables outside this study. Furthermore, when viewed from each variable, *boredom proneness* has an R square value of 0.214, which means that *boredom proneness* contributes 21.4% to *phubbing* and has a moderate positive relationship. Meanwhile, interpersonal communication has an R-square value of 0.047, which means that interpersonal communication contributes 4.7% to *phubbing* and has a weak relationship. This indicates that the variable that has a dominant contribution to *phubbing* is *boredom proneness* because it has the strongest relationship and contribution compared to interpersonal communication.

Based on the findings, we examined whether there was a significant relationship between the independent variables and the dependent variables. In terms of the *boredom proneness* variable, the value of $r = 0.463$ with a sig value of $0.000 < 0.05$ indicates a significant positive relationship between *boredom proneness* and *phubbing*. This indicates that the higher the *boredom proneness*, the higher the tendency to *phubbing*. When teenagers experience boredom in their free time, they often seek entertainment and satisfaction through *their smartphones*. Over time, excessive cell phone use can lead to dependence and indifference towards the surrounding environment. Individuals who tend to be bored and are already addicted to *smartphones* are also likely to exhibit *phubbing* behavior[27]. *Phubbing*, which is triggered by boredom, often damages social relationships, because the perpetrator's neglect makes those around them feel unappreciated. A contributing factor to *phubbing* among teenagers is the advanced features available on *smartphones*, which cause them to spend more time playing with their phones[28].

These findings are in line with research by Lv & Wang, which states that there is a positive relationship between *boredom proneness* and *phubbing*; people with high levels of boredom are more likely to rely on their smartphones, even using them as a mechanism to cope with boredom, discomfort, or social pressure. Avoiding *phubbing* is not only about overcoming boredom, but also reducing the fear of missing out and being alert to *smartphones*[29]. This research finding is in line with previous studies that say *boredom proneness* is one of the factors that play a role in the emergence of *phubbing* behavior. Individuals who have a tendency to feel bored easily tend to seek stimuli and entertainment that are considered more interesting through *smartphones* rather than through direct interaction. When boredom arises, an individual's attention to their surroundings can decrease, thereby reducing their involvement in social interactions[11].

Phubbing is the act of prioritizing *smartphones* over focusing on interacting with other people[9]. *Boredom proneness* can increase the frequency of *phubbing*. Boredom tends to arise when individuals are in a situation where they have free time, where the boredom they feel drives them to seek escape by doing things they find more interesting and comfortable, such as opening *their smartphones*[30]. This is supported by previous

research that susceptibility to boredom is often closely related to the emergence of negative emotions, such as frustration, irritation, or discomfort. Individuals tend to seek escape from these feelings, and one form of this is *phubbing* behavior. People with high levels of susceptibility to boredom are also more prone to academic fatigue, aggressive behavior, cell phone addiction, and problematic psychological behaviors such as alcohol dependence, gambling, and drug abuse. Susceptibility to boredom can be an early indicator of various physiological, psychological, and social problems. Additionally, *phubbing* appears to share similar risk factors with other behavioral or substance addictions. Individuals who are highly susceptible to boredom are often driven to engage in activities that provide intense stimulation or pleasure to avoid emotional imbalance caused by a lack of stimulation. Therefore, phones, as a new and diverse source of stimulation, easily trigger addiction in them[18].

In terms of interpersonal communication variables, the results show a value of $r = -0.217$ with a sig value of $0.000 < 0.05$, indicating a significant negative relationship with *phubbing*. This means that the better the quality of interpersonal communication, the lower the tendency to *phub*. Interpersonal communication is the process of sending and receiving messages that takes place directly between two or more people. Through face-to-face communication, messages can be conveyed clearly and the recipient has the opportunity to respond immediately, creating a reciprocal interaction.[20]. When teenagers get together, they are often more interested in capturing the moment through photos or videos, then immediately uploading them to social media platforms. Responses from friends in the virtual world, such as comments or likes, provide satisfaction and are more appealing than the direct interaction taking place right before their eyes. As a result, interpersonal relationships become less profound, leading to decreased satisfaction and a lack of attention to one another. Therefore, it is not surprising that today's teenagers prefer to explore the virtual world, where they spend most of their time communicating boldly, completing school assignments, or seeking entertainment through various platforms. Additionally, the ability to connect with the virtual world by scrolling through social media timelines makes teenagers increasingly enjoy their *smartphone* screens, causing them to become less sensitive to their surroundings, even when they are with friends, thereby reducing their focus on the conversation at hand.[6]

Phubbing can be a barrier because individuals who engage in it tend to ignore the person they are talking to and focus more on their *smartphone*. Excessive *smartphone* use often disrupts the quality of interpersonal relationships, especially in vertical contexts such as between superiors and subordinates or parents and children, which ultimately makes people who frequently engage in *phubbing* less active in their daily social interactions. Essentially, when someone is so preoccupied with *their smartphone* that they forget the presence of those around them, including reduced awareness of their surroundings, this increases the tendency to engage in *phubbing* behavior. Individuals who exhibit this type of behavior will experience a decline in the quality of communication in their social environment, where mutual belonging and empathy between individuals are reduced[7]. This habit causes them to focus too much on *their smartphones*, making them indifferent to their surroundings, even when they are with friends. Ultimately, teenagers become unable to concentrate on the conversation at hand. This situation actually lowers the quality of interpersonal communication, leading to the emergence of *phubbing* behavior. The inability to build warm and effective relationships directly creates gaps in social interactions, which are then filled by engagement in the digital world. Thus, this behavior not only changes the social interaction patterns of teenagers, but also affects how they build and maintain good relationships in their daily lives[31].

This study is in line with previous research stating that there is a significant negative correlation: if someone has better direct communication skills, such as listening, maintaining eye contact, and responding to the other person, then the tendency to focus on *smartphones* during interactions will be lower. Conversely, individuals who feel uncomfortable communicating in social situations tend to be distracted by their cell phones to avoid interaction, which increases *phubbing*. These findings indicate that the quality of interpersonal communication plays a role as a factor that has the potential to reduce the occurrence of *phubbing*[8] . Other studies also show that interpersonal communication has a negative relationship with *phubbing*; individuals with poor interpersonal communication skills tend to *phub* more often. This article also discusses aspects that show that low empathy and positive attitudes make individuals less interactive with their conversation partners, so that individuals tend to switch to *their smartphones* and ignore their conversation partners. Furthermore, *phubbing* shows that the use of cell phones during face-to-face interactions is a common and habitual occurrence. Poor interpersonal communication and obsession with cell phones reinforce the tendency to *phub* in everyday life[19] .

This study has limitations that must be considered in interpreting the results and conducting further studies. First, this study focuses on respondents who are mostly from central and urban areas, while there is still a lack of representation of adolescents from suburban areas. Second, there is a possibility of an imbalance in the distribution of participant characteristics, for example based on gender, because most of the respondents in this study were female. This limitation affects the generalizability of the results. Third, the researcher used a scale with reliability at the threshold of acceptability; it is recommended that future studies use a scale with higher reliability.

4 Conclusion

This study concludes that there is a relationship between *boredom proneness* and interpersonal communication with *phubbing* among adolescents in Sidoarjo, where *boredom proneness* has a positive relationship with *phubbing* and interpersonal communication has a negative relationship with *phubbing*. This shows that *boredom proneness* and interpersonal communication can lead to *phubbing*. In addition, the variable of *boredom proneness* shows the most dominant relationship with *phubbing* compared to the variable of interpersonal communication. Based on the above research, the researcher provides the following recommendations:

4.1 For Adolescents

Teenagers need to increase their awareness in using *smartphones*, especially when interacting with other people. Excessive *smartphone* use should be controlled. To overcome boredom, positive activities such as joining organizations or pursuing hobbies can be done. In addition, teenagers also need to develop interpersonal skills such as making eye contact, listening attentively and empathetically to friends when they talk, and showing empathy towards others. This will help build healthier relationships and reduce the tendency to *phubbing*.

4.2 Further Research

The researchers have suggestions for future researchers, namely to refer to the limitations of this study, particularly because it focused only on adolescents in the urban

and central areas of Sidoarjo. Future researchers are advised to expand the scope of participants from various suburban areas in order to produce more representative data. Future researchers are advised to include other variables that may be related to *phubbing*, such as loneliness or social anxiety, in order to gain a more comprehensive understanding of the factors that trigger *phubbing* in adolescents.

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References

- [1] H. Helmaliah, P. M. Parham, P. N. Sari, and U. Mahyuddin, "Development in Adolescence," *Behavior Journal of Education, Guidance, Counseling, and Psychology*, vol. 1, no. 1, pp. 37–56, 2024. [Online]. Available: <https://jurnal.stainmajene.ac.id/index.php/bkpi/index>
- [2] J. W. Santrock, *Life-Span Development*, 13th ed., vol. 1. Jakarta, Indonesia: Erlangga, 2018.
- [3] E. Suryana, A. I. Hasdikurniati, A. A. Harmayanti, and K. Harto, "Early and Middle Adolescent Development and Its Implications for Education," *Jurnal Ilmiah Mandala Education*, vol. 8, no. 3, pp. 1917–1928, 2022, doi: 10.58258/jime.v8i3.3494.
- [4] M. Abivian, "An Overview of Phubbing Behavior and Its Influence on Adolescents in the Society 5.0 Era," *Prophetic: Professional Empathy and Islamic Counseling Journal*, vol. 5, no. 2, pp. 155–164, 2022, doi: 10.24235/prophetic.v5i2.12786.
- [5] M. S. Hura, N. W. Sitasari, and Y. A. Rozali, "The Influence of Fear of Missing Out on Phubbing Behavior in Adolescents," *Jurnal Psikologi: Media Ilmiah Psikologi*, vol. 19, no. 2, pp. 34–45, 2021, doi: 10.47007/jpsi.v19i2.191.
- [6] A. P. Dewi, C. P. Dimala, and A. Pertiwi, "Phubbing Behavior in Social Media Users Among Adolescents Reviewed from Fear of Missing Out," *Journal of Research in Education, Psychology, and Health*, vol. 5, no. 3, pp. 670–679, 2024, doi: 10.51849/j-p3k.v5i3.456.
- [7] N. Suhendriani and S. Nugroho, "The Big Five Personality Traits and Phubbing Behavior Among High School Students," *Journal of Islamic Contemporary Psychology*, vol. 2, no. 1, pp. 117–128, 2022, doi: 10.25299/jicop.v2i2.11568.
- [8] M. A. Romadon, G. R. Affandi, and R. A. Paryontri, "The Influence of Interpersonal Communication and Fear of Missing Out on Phubbing Behavior in Early Adults," *Jurnal Ilmiah Ilmu Pendidikan*, vol. 8, no. 5, pp. 4734–4744, 2025, doi: 10.54371/jiip.v8i5.7862.
- [9] T. Tamri, R. Erwandi, and R. Slamati, "The Implications of Fear of Missing Out on Phubbing Behavior: A Case Study of Children," *Journal of Education and Social Humanities Research*, vol. 6, no. 2, pp. 343–349, 2023, doi: 10.31539/kaganga.v6i2.7344.
- [10] C. R. Sari and D. A. Widyastuti, "Characteristics of Phubbing Behavior Among Adolescents in Developed Countries," in *Proceedings of the International Seminar on Character Building Towards Multicultural Counselors*, 2023. [Online]. Available: <https://seminar.uad.ac.id/index.php/PSNBK/index>
- [11] Z. Amiro and L. Laka, "The Effect of Boredom Proneness on Phubbing Behavior in Adolescents," *Liberosis: Journal of Psychology and Counseling*, vol. 1, no. 1, pp. 1–17, 2023, doi: 10.3287/ljpbk.v1i1.325.
- [12] Y. Rosdiana and W. R. Hastutiningtyas, "The Relationship Between Phubbing Behavior and Social Interaction Among Generation Z Nursing Students," *Mesencephalon: Journal of Health Sciences*, vol. 6, no. 1, pp. 42–47, 2020, doi: 10.36053/mesencephalon.v6i1.194.

- [13] N. Mubina, C. H. Leometa, Y. Pratomo, and A. N. Hidayati, "Predictors of Phubbing Behavior in Adolescents," *Journal of Psychology and Counseling West Science*, vol. 3, no. 1, pp. 33–40, 2025.
- [14] R. N. Ramdhani, N. T. Salsabila, and D. Sudrajat, "The Phenomenon of Phubbing Behavior in Adolescents and Its Implications for Counseling Services," *Counseling Journal*, vol. 15, no. 1, pp. 86–102, 2025, doi: 10.25273/counsellia.v15i1.22374.
- [15] S. Herman, "The Influence of Boredom Proneness and Loneliness on Phubbing Behavior in Late Adolescents," Undergraduate Thesis, Universitas Pendidikan Indonesia, 2024. [Online]. Available: <https://repository.upi.edu/126068/>
- [16] J. Bai et al., "The Relationship Between the Use of Mobile Social Media and Subjective Well-Being: The Mediating Effect of Boredom Proneness," *Frontiers in Psychology*, vol. 11, 2021, doi: 10.3389/fpsyg.2020.568492.
- [17] N. Yao, J. Chen, S. Huang, C. Montag, and J. D. Elhai, "Depression and Social Anxiety in Relation to Problematic TikTok Use Severity," *Computers in Human Behavior*, vol. 145, Art. no. 107751, 2023, doi: 10.1016/j.chb.2023.107751.
- [18] B. Gao et al., "Why Can't I Stop Phubbing? A Multiple Mediation Model," *Psychology Research and Behavior Management*, vol. 16, pp. 3727–3738, 2023, doi: 10.2147/PRBM.S423371.
- [19] N. Hafizah, M. A. Adriansyah, and R. F. Permatasari, "Self-Control and Interpersonal Communication on Phubbing Behavior," *Psikoborneo: Scientific Psychology Journal*, vol. 9, no. 3, pp. 630–654, 2021, doi: 10.30872/psikoborneo.v9i3.6504.
- [20] C. Anggraini, D. H. Ritonga, L. Kristina, M. Syam, and W. Kustiawan, "Interpersonal Communication," *Journal of Multidisciplinary Dehasen*, vol. 1, no. 3, pp. 337–342, 2022, doi: 10.37676/mude.v1i3.2611.
- [21] G. E. Nababan, W. L. Riza, and D. Aisha, "The Influence of FOMO and Boredom Proneness on Phubbing Behavior," *Guidena Journal*, vol. 14, no. 3, pp. 637–648, 2024, doi: 10.24127/gdn.v14i3.10289.
- [22] P. S. Mustafa, "Literature Review of Multiple R Test Analysis in Inferential Statistics," *Jurnal Ilmiah Wahana Pendidikan*, vol. 9, no. 5, pp. 571–593, 2023, doi: 10.5281/zenodo.7758162.
- [23] Central Statistics Agency, *Sidoarjo Regency in Figures 2025*. Sidoarjo, Indonesia: BPS, 2025. [Online]. Available: <https://sidoarjokab.bps.go.id/id>
- [24] N. Suriani, Risnita, and M. S. Jailani, "Population and Sampling Concepts in Educational Research," *Ihsan: Journal of Islamic Education*, vol. 1, no. 2, pp. 24–36, 2023.
- [25] M. A. Romadon, G. R. Affandi, and R. A. Paryontri, "Blueprint of FOMO Scale, Interpersonal Communication, and Phubbing," Preprint, 2025. [Online]. Available: <https://archive.umsida.ac.id/index.php/archive/preprint/view/8252>
- [26] S. Herman, "Blueprint of Boredom Proneness and Loneliness on Phubbing Behavior," Undergraduate Thesis, Universitas Pendidikan Indonesia, 2024.
- [27] S. Hasanuddin, N. Koanda, and A. N. A. Saudi, "The Influence of Leisure Boredom on Phubbing Behavior in Adolescents," *Journal of Psychology Character*, vol. 4, no. 2, pp. 601–609, 2024, doi: 10.56326/jpk.v4i2.5451.
- [28] R. W. Sari, "The Influence of Boredom Proneness on Phubbing Behavior in Adolescents," *Edu Sociata: Journal of Education Sociology*, vol. 8, no. 1, 2025, doi: 10.33627/es.v8i1.3290.
- [29] S. Lv and H. Wang, "The Effect of College Students' Boredom Proneness on Phubbing," *Perspectives in Psychiatric Care*, 2023, doi: 10.1155/2023/9713789.
- [30] Y. Rosdiana, W. R. Hastutiningtyas, and Nurheni, "The Influence of Smartphone Addiction, Self-Control, and Boredom Proneness on Phubbing Behavior," *Journal of Nursing Care and Biomolecular*, vol. 8, no. 1, pp. 63–69, 2023.
- [31] U. Laili, N. Putri, N. T. Pratitis, I. Y. Arifiana, and F. Psychology, "Phone Snubbing in Young Adults: The Role of Self-Control," *Inner Journal of Psychological Research*, vol. 5, no. 1, 2024, doi: 10.69957/inner.v5i1.

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