The Effect of Smartphone Addiction and Self-Control on Phubbing Behavior

(Analisis Pengaruh Smartphone Addiction dan Self Control Terhadap Perilaku Phubbing)

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Abstract: Phubbing is a behavior of ignoring the interlocutor and focusing more on smartphones. This behavior, which is quite common recently, has a negative impact on social interactions. The purpose of this study was to analyze the effect of smartphone addiction and self-control on phubbing behavior. This study employed a correlational research design. Three hundred and seventy-nine samples involved in this study were recruited using random sampling techniques. The data were collected using the Smartphone Addiction Scale, Phubbing Scale, and Self-Control Scale. The data were analyzed using regression analysis assisted by JASP software version 0.11.10. The findings show that smartphone addiction is a predictor of phubbing behavior by 47 percent, while other factors influence the rest. Self-control was not proven to be a significant predictor of phubbing behavior in the researched participants. An in-depth study of the factors that influence phubbing behavior is encouraged to be investigated for further research.

Keywords: phubbing behavior; smartphone; self-control

Abstrak: *Phubbing* adalah perilaku mengabaikan lawan bicara dan lebih fokus kepada *smartphone*. Perilaku yang kini cukup umum terjadi ini, berdampak buruk bagi interaksi sosial. Tujuan penelitian ini adalah menganalisis pengaruh *smartphone addiction* dan *self-control* terhadap perilaku *phubbing*. Penelitian ini menggunakan desain penelitian korelasional. Tiga ratus tujuh puluh sembilan sampel yang dilibatkan dalam penelitian ini dijaring menggunakan teknik *random sampling*. Pengumpulan data menggunakan Skala *Smartphone Addiction*, Skala *Phubbing* dan Skala *Self-Contol*. Data kemudian dianalisis menggunakan analisis regresi berbantuan *software* JASP versi 0.11.10. Temuan penelitian menunjukkan bahwa *smartphone addiction* terbukti menjadi prediktor perilaku *phubbing* sebesar 47 persen, sisanya dipengaruhi oleh faktor lain. *Self-control* tidak terbukti secara signifikan sebagai prediktor perilaku *phubbing* pada responden. Kajian mendalam tentang faktor-faktor yang memengaruhi perilaku *phubbing* masih perlu untuk ditindaklanjuti pada penelitian berikutnya.

Kata kunci: perilaku *phubbing*; gawai pintar; kontrol diri

INTRODUCTION

The industrial revolution 4.0 brings changes in all dimensions of human life, be it in the advancement of science, information and communication technology (Nardo, Forino, & Murino, 2020). A leap of science and technology, especially in the field of communication and information, has now been achieved with a variety of high-tech products and devices, one of which is smartphones. Smartphones have recently taken over the role of personal computers and laptops as the most commonly used devices for accessing the internet (Buckle, 2016). One of the negative sides of smartphone use is its ability to separate people and ignore people when interacting physically because they are too engrossed in their smartphones (David & Roberts, 2017; Turkle, 2017).

Technology that has become an integral part of life is starting to partially replace face-to-face communication (Drago, 2015). The excessive use of technology has resulted in a decrease in the amount and quality of face-to-face communication (Drago, 2015). Other research shows someone will feel afraid of losing something important from social media so that he will always check his smartphone continuously, even in front of other people (Przybylski, Murayama, DeHaan, & Gladwell, 2013). Someone who ignores other people when communicating and focuses more on smartphones and has less respect for other people when interacting with the other person is called phubbing (Chotpitayasunondh & Douglas, 2016; Karadağ et al., 2015; Nazir & Pişkin, 2016). The term phubbing was originally coined in a campaign by Macquarie Dictionary for abuse of smartphones in social situations (Pathak, 2013).

Several studies have recently investigated the antecedent of phubbing behavior namely smartphone addiction (Chotpitayasunondh & Douglas, 2016; Karadağ et al., 2015). Smartphone addiction is a behavior of attachment or dependence on smartphones that may cause social problems such as withdrawal, and difficulty in performing daily activities or as impulse control disorders of a person. (Kwon, Kim, Cho, & Yang, 2013). Previous research results indicate that the variable that most influences phubbing is smartphone addiction (Fauzan, 2018). In line with this study, other studies show that the intensity of smartphone use affects phubbing behavior by 45.1% (Syifa, 2020).

Apart from smartphone addiction, there are other variables that have an influence on phubbing behavior, one of which is self-control. Self-control is an individual's tendency to consider various consequences for certain behaviors (Wolfe & Higgins, 2008). People who have difficulty controlling themselves are allegedly unable to control the use of their smartphones (Billieux, Van der Linden, & Rochat, 2008; Mumtaz, 2019). Lack of self-control can also interfere with task focus, increase irrelevant thought processes and increase the frequency of smartphone use (Billieux et al., 2008). Ideally an individual is able to control himself to behave in accordance with the norms prevailing in society, so that when someone is faced with a smartphone, they can control themselves in using their smartphone (Parker & Jarolimek, 1993). Several previous studies showed that self-control contributed 2.2% to phubbing behavior (Mumtaz, 2019) Likewise the results of other studies which showed that self-control contributed 26.1% to phubbing behavior, while 74.9% were influenced by other factors (Kurnia, 2020).

Based on the findings of previous studies, smartphone addiction and self-control are predictors of phubbing behavior. This is in line with research results which show that the most important predictors associated with phubber are smartphone addiction and lack of self-control (Davey et al., 2018). Other studies have shown that self-control is not a direct predictor of phubbing, but that self-control is closely related to addictive behavior. The results of these studies indicate that self-control negatively predicts with smartphone addiction (Chotpitayasunondh & Douglas, 2016; Kim, Namkoong, Ku, & Kim, 2008).

Based on a preliminary study conducted by researchers in March 2020 at Universitas Negeri Semarang, as many as 45.9% of students used smartphones for more than 6 hours, 25% of students used smartphones for 5–6 hours, 19.2% of students used 3–5 hours, the rest less than that. This shows that the duration of smartphone use is far above the global average which has an average duration of 2 hours 16 minutes (Has, Istianah, & Qona'ah, 2020). Most of them realized that they had done phubbing when they were in class, in the canteen, in the gazebo and even during group discussions. Sixty seven percent of the phubbing victims feel normal and not offended, the rest feel disappointed and offended because they feel unnoticed when interacting. This data shows that one of the impacts of excessive smartphone use is the emergence of phubbing behavior (End, Worthman, Mathews, & Wetterau, 2009).

Smartphones for students belonging to generation Z are a necessity. However, this phenomenon shows that students are more engrossed in playing smartphones than paying attention to their interlocutors. Most of the time they have is also used to access cyberspace and are used to making friends through social media (Afdal et al., 2019). Nowadays, students tend to lack the skills to socialize directly because all the information needed can be available on gadgets so they generally tend to be individualistic (Hanika, 2015). In addition, when communicating with other people in real terms, Generation Z did not leave the smartphone from its grasp (Youarti & Hidayah, 2018). If this happens continuously, the social development of the younger generation can be hampered and have the opportunity to become apathetic or experience mental disorders. Individuals who do phubbing have behaviors that make their lives ineffective or their potential cannot develop optimally, especially in terms of communication and socializing (Afdal et al., 2019). One of the goals of guidance and counseling in universities is to help students to foster good social relations with fellow students and lecturers (Juntika, 2006). Related to the phubbing phenomenon, guidance and counseling in universities should be able to help students who exhibit phubbing behavior. Based on the phenomenon and previous research and consideration of the impact of phubbing behavior, the aim of this study was to determine the extent of the influence of smartphone addiction and self-control on phubbing behavior among students.

METHOD

A quantitative method with a correlational design was used in this study. The study involved three variables. The dependent variable is phubbing behavior and two independent variables are smartphone addiction and self-control. The relationship between variables is displayed in Figure 1. Participants involved in this study were 29007 students from eight faculties at Universitas Negeri Semarang. They were recruited using random sampling technique. The sample calculation was based on Isaac and Michael's table (Sugiyono, 2017) with an error rate of 5% of the total population of 29007, resulting in a minimum sample size of 348. The samples collected in the study were 379 students, and the researchers decided to use all samples.

The data in this study employed three adaptation scales: Smartphone Addiction Scale Short Version (SAS-SV), General Phubbing Scale (GPS), and the Self-control Scale. The researchers used Smartphone Addiction Scale Short Version (SAS-SV) adapted from Kwon et al., (2013) with six aspects namely withdrawal symptoms, disturbances of daily life, social anticipation, cyberspace-oriented relationships, overuse and ten-point tolerance. The scale reliability coefficient is 0.742 and the validity is 0.485–0.706 > r table 0.113.

Meanwhile, General Phubbing Scale (GPS) which was adapted from Chotpitayasunondh and Douglas (2018) consists of four aspects, namely nomophobia, interpersonal conflict, self-isolation and problem acknowledgment. This scale also includes 15 items. The scale reliability coefficient is 0.723 and the validity is 0.347–0.590 > r table 0.113. Lastly, the Self-control Scale adapted from Averill which had been modified by Mumtaz (2019) includes three aspects, namely behavioral control, cognitive control, and decision control. This scale consisted of 13 items; one item was invalid so the researchers decided to abort the item. The scale reliability coefficient is 0.715 and the validity is 0.265–0.647 > r table 0.113.

Data were collected using Google Form as it is easy to access, simple to operate, and free to use (Batubara, 2016). Both descriptive and multiple regression analyses were used in this study. Prior to using multiple regression, a classic assumption test was carried out. The classical assumption tests carried
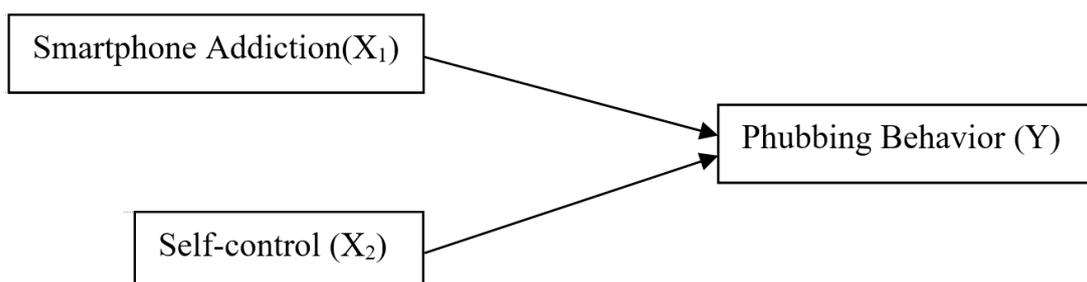

Figure 1. Influence Model of Smartphone Addiction (X_1) and Self-Control (X_2) on Phubbing Behavior (Y)

out included normality test, heteroscedasticity test, linearity test, and multicollinearity test. Descriptive analysis was used to describe the profile of each variable. Regression analysis was used to determine the effect of smartphone addiction and self-control on students' phubbing behavior. To conduct research analysis, researchers used JASP version 0.11.10 software.

RESULTS

The prerequisite test result for regression analysis is to perform the classical assumption test. The first assumption test is the normality test. Based on Figure 2, it can be seen that the data are normally distributed. The second assumption test is to test heteroscedasticity. A good regression model requires no heteroscedasticity problems by looking at the scatterplot graph shown in Figure 3. Based on Figure 3, the dots spread above and below the 0 on the Y axis, so there is no symptom of heteroscedasticity. The third assumption test is the linearity test. The results of the linearity test using the JASP application by looking at the Q-Q plot graph show that the standardized residuals depicted are dots approaching the diagonal line as shown in Figure 4.

The fourth assumption test is the multicollinearity test. Multicollinearity test is used to find out the relationship of each independent variable in the regression model. The test results show the smartphone addiction variable (X1) has a tolerance value of 0.998 > 0.1 and a VIF value of 1.002 < 10, while the Self-control variable (X2) has a tolerance value of 0.998 > 0.1 and VIF 1.002 < 10, based on the results of the tolerance and VIF values, it can be seen that there are no symptoms of multicollinearity. Based on the assumption test as a prerequisite for regression analysis, the requirements for regression testing have been met. Furthermore, the researcher conducted a descriptive analysis. The results of descriptive analysis of the three variables are presented in Table 1, Table 2 and Table 3. The results of hypothesis test about the effect of smartphone addiction and self-control on phubbing behavior are presented in Table 4. In Table 4, N = 379, SA is Smartphone Addiction, SC is Self-control, ** is p-value < 0.01, and * is p-value = 0.749

Based on the results of multiple regression test between the smartphone addiction variable and phubbing behavior, it is found that smartphone addiction has a positive and significant contribution to phubbing behavior (t = 18.137 *, β = 0.735, p = < 0.01). Based on the results of regression test between self-control and phubbing behavior, the results show that self-control does not contribute and is not significant (t = - 0.32 *, β = - 0.013, p = 0.749; p > 0.05). In other words, self-control was not proven to hypothetically predict phubbing behavior. Based on the results of the multiple regression test, it is found that only smartphone addiction contributes to the phubbing behavior of Universitas Negeri Semarang students (R = 0.684, R2 = 0.467 F = 165.034, p = < 0.01). It is proven in Table 4 which shows that the coefficient of determination is 0.467 which informs that the percentage of smartphone addiction and phubbing behavior is 47%, while the rest is predicted by other variables
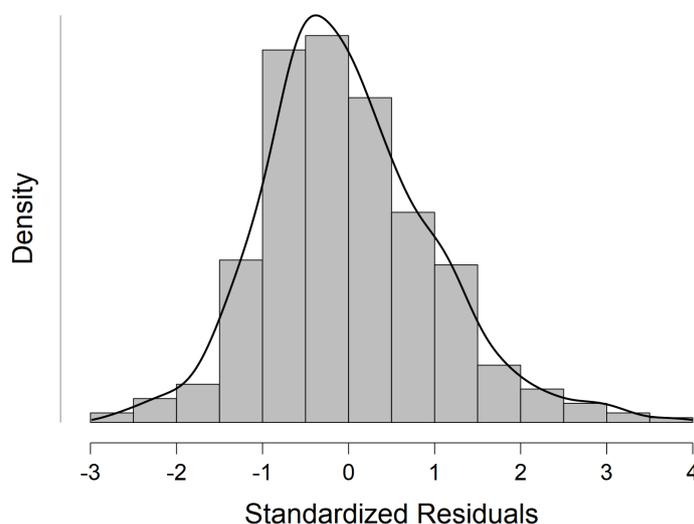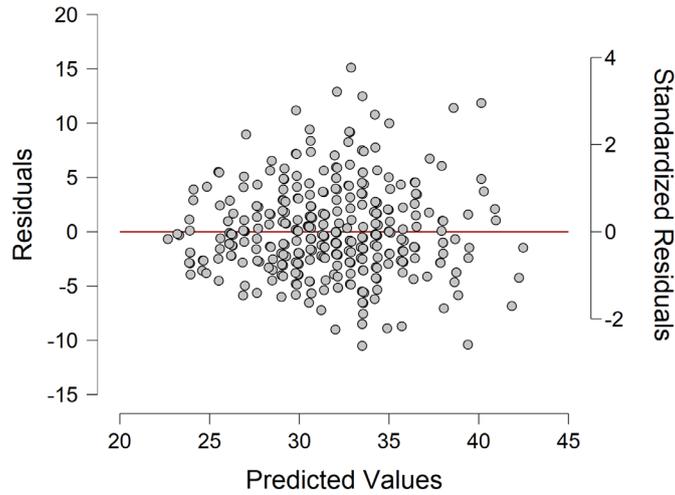

Figure 2. Normality Test
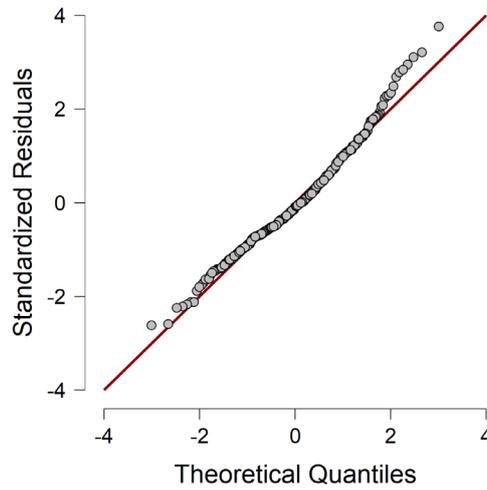
Figure 3. Heteroscedasticity Test

Figure 4. Linearity Test

Table 1. Descriptive Analysis of Smartphone Addiction Variable

Category	Frequency	Percentage (%)
High	310	81.78
Medium	69	18.20
Low	0	0

Table 2. Descriptive Analysis of Self-Control Variable

Category	Frequency	Percentage (%)
High	367	96.83
Medium	12	3.16
Low	0	0

Table 3. Descriptive Analysis of Phubbing Behavior Variable

Category	Frequency	Percentage (%)
High	203	53.56
Medium	116	30.6
Low	60	15.83

Table 4. Effect of Smartphone Addiction and Self-Control on Phubbing Behavior

No	Variable	β	t	R	R²	F
1	Smartphone Addiction (SA)	0.735	18.137**	-		
2	Self-control (SC)	-0.013	-0.32*	-		
3	SA and SC			0.684	0.467	165.034**

DISCUSSION

The results of this study are different from the results of previous studies which show that the higher the self-control, the lower the phubbing behavior, and vice versa (Davey et al., 2018; Kurnia, 2020; Mumtaz, 2019). There is no evidence that self-control directly as a predictor of phubbing behavior can be caused by various factors, including sample size (n) and data variability (Azwar, 2005). In other words, the sample data collected by researchers did not succeed in proving the contribution of self-control indirectly predicting phubbing behavior among students at Universitas Negeri Semarang. Another study shows that a lack of self-control also prevents individuals from coping with internet and smartphone addiction and ends up phubbing (Davey et al., 2018). In contrast to the results of research conducted by Chotpitayasunondh and Douglas (2016) which states that self-control has a significant effect through the mediation of addiction smartphones. In other words, self-control has an indirect effect on phubbing behavior.

The second finding in this study is that 96.83% of Universitas Negeri Semarang students have self-control in the high category, and 3.16% are in the medium category. This means that students with high self-control will appreciate their interlocutors more and think that what friends are talking about is an important thing to pay attention to, so that they will focus on friends' conversations and pay attention to eye contact and not be affected by notifications on smartphones. This is in line with previous research by Averill (1973) which reveals that self-control is a person's ability to direct, regulate, arrange and guide behavior that leads a person in a positive direction so that their behavior is in accordance with applicable rules or norms. Many factors can influence self-control from low to high, including the family environment, especially the role of parents. The role of parents who are increasingly democratic, as an example in applying discipline from an early age, will be internalized by the child to control himself in their behavior (Ghufron & Suminta, 2010; Mulyati & Frieda, 2019). Self-control enables individuals to be able to cope with bad experiences and manage their emotions, cognition, and behavior effectively so that self-control functions as a buffer for the adverse effects of risk factors (for example, family crises and divorce), both from internal and external problems (Niu et al., 2020).

The third finding shows that the smartphone addiction of Universitas Negeri Semarang students who are in the high category is 87.78% and the other 18.12% are in the medium category. These findings should certainly be of concern considering the impact of smartphone addiction, including the reduction in the frequency of social interactions so that they feel stressed if individuals forget not to bring their smartphones (Jones, 2014). In addition, excessive smartphone use will have a negative impact on users. These negative impacts include: feeling anxious, depression, looking at cellphones all the time and wanting to keep updated information, and fear of losing important information which can indirectly reduce empathy and lead to social isolation (Jordaan & Surujlal, 2013; Rayes, 2017; Sarwar & Soomro, 2013).

The fourth finding is that 53.56% of Universitas Negeri Semarang student have phubbing behavior in the high category, 30.6% is in the medium category and 15.83% is in the low category. These findings indicate that the high phubbing behavior occurs because smartphones have become necessary where their presence cannot be separated from a person (Youarti & Hidayah, 2018). In line with the research findings, the results of other studies indicate that an increase in phubbing behavior significantly decreases the quality of communication and interpersonal relationships. Individuals are more interested in information obtained from electronic media than in the messages conveyed between them (Chotpitayasunondh & Douglas, 2018). Individuals who behave phubbing more often look at smartphones when talking to others and are busy using smartphones rather than communicating interpersonally with other people

(Dai, 2016; Karadağ et al., 2015). This is caused by factors inside and outside the individual, such as understanding social values, curiosity, or the desire to update information and the ability to manage oneself or foster social relationships will be an individual determinant of phubbing behavior (David & Roberts, 2017).

Someone who experiences smartphone addiction will tend to ignore their environment and be more likely to engage in phubbing behavior. That is because someone is more engrossed in their world, so they tend to ignore those around them. This is supported by the fifth finding in this study which shows that smartphone addiction has a 47% prediction of phubbing behavior. These findings are in line with the research results conducted by Chotpitayasunondh and Douglas (2016) which shows that smartphone addiction significantly affects phubbing behavior. The impact of phubbing behavior, namely ignoring direct interactions, reducing the quality and satisfaction of interactions, reducing trust in the interlocutor, stretching relationships with communication partners, jealousy, affecting one's mood, and creating social exclusion situations because of the opposite interaction, feeling unnoticed, resulting in feelings of hopelessness and helplessness (Chotpitayasunondh & Douglas, 2016). In addition, people who are addicted will find it difficult to escape from situations and cannot control themselves to carry out certain selected activities. Smartphone addiction makes people lose track of time, ignore the environment and disrespect other people so that they are unwittingly phubbing in social interactions (Abeele, Antheunis, & Schouten, 2016; Prasetyo, 2017).

Phubbing behavior is one example of problems that arise in the digital era and requires many parties' attention, not only for counselors but also for other education practitioners. Therefore, innovation programs are needed so that individuals can wisely use their smartphones. One of the programs that can be applied is guidance and counseling in higher education, which aiming to help students develop social relationships with fellow students and lecturers well (Juntika, 2006). This study also expects that the phubbing behavior can be overcome by implementing counseling services in the learning process (Afdal et al., 2019). This is in line with one of the counseling service objectives, which is to help individuals lead an effective daily life (Prayitno, 2017).

The limitation in this study is that the sample used is only Universitas Negeri Semarang students so that to be generalized, further research is needed in taking a wider sample. In addition, this study only proves two factors that influence phubbing behavior, namely smartphone addiction and self-control, although only smartphone addiction is proven.

CONCLUSION

Smartphone addiction has a significant effect on phubbing behavior. The results of this study reinforce previous research which states that smartphone addiction is a predictor of phubbing behavior. However, it cannot be separated from other factors that influence it. The findings of other researchers are that self-control was not proven to predict phubbing behavior directly. Based on this research, efforts to reduce phubbing behavior can be done by optimizing guidance and counseling services in universities. One of them is by providing counseling services and webinars that can enhance students' soft skills. For further research, it is necessary to have an in-depth study of phubbing behavior in various situations and conditions, such as phubbing behavior in the office, school, and family. Other factors that influence phubbing behavior include fear of missing out (FOMO), cyberloafing, self-regulation, social media addiction, etc. It also needs to be studied in-depth to add to the theoretical repertoire of phubbing.

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