Phubbing in Millennial Generation: The Influence of Fear of Missing Out and Self-Control

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Abstract

Millennials were very familiar with the use of smartphones. Excessive use of smartphones could trigger the problem of phubbing behavior that ignores the interlocutor by focusing more on accessing the applications on his smartphone rather than interacting directly with the individual in front of him. The anxiety of being left behind or unable to receive or update information, called Fear of missing out (FoMO) related to phubbing behavior. Low self-control was a factor in problematic smartphone use, including phubbing behavior. This study aimed to see whether there was a relationship between Fear of missing out (FoMO) and self-control in phubbing behavior in the millennial generation. This research used a quantitative survey with accidental sampling techniques. The number of samples in this study was 400 millennial generations in Indonesia. Data collection techniques are carried out online using Google Forms. The results of data collection were analyzed using multiple regression analysis. The result showed that there was a relationship between Fear of missing out (FoMO) and self-control with phubbing behavior ($R = 0.584$, $R^2 = 0.341$, $F = 102.542$, $p = 0.000$, $p < 0.05$). The partial $t$-test found that the self-control variable affected phubbing behavior, and the partial $t$-test found that FoMO also affected phubbing behavior. Self-control contributed more to phubbing behavior than FoMO.

Keywords: Fear of missing out (FoMO), self-control, phubbing behavior, the millennial generation

Received 12 November 2022/Accepted 20 March 2023 ©Author all rights reserved.

Introduction

Smartphone technology offers many conveniences to users that could increase a person's dependence on smartphones and overuse them. The millennial generation, born from 1980 to 2000, was very familiar with smartphones (Budiati et al., 2018; Curtis B.L. et al., 2019; Reski, P., 2020). The benefits of smartphones were not only for communication but also for many other activities such as information search, entertainment, and commercial transactions. Millennials use smartphones to interact with others (Curtis, B.L. et al., 2019) and for activities on social media (Verma S. et al., 2021).
Dependence on smartphones was related to phubbing behavior (Chotpitayasunondh & Douglas, 2016). Phubbing behavior was ignoring the interlocutor by focusing more on accessing the application on his smartphone rather than interacting directly with the individual in front of him (Chotpitayasunondh & Douglas, 2018). The person still used the smartphone, even if somebody tried communicating with them. It made the interlocutor feel neglected, guessing that his presence was unexpected (Przybylski & Weinstein, 2012; Nazir & Pişkin, 2016). We could see phubbing behavior in our daily lives, such as; when attending family events or cafes.

Many people were busy staring at their smartphone screens instead of communicating with the person in front of them. Some people were busy typing on the screen of their smartphones, some were engrossed in scrolling the screen, and some looked very seriously at their smartphones. Phubbing behavior seems trivial, but it harms social relations. Phubbing impacts the quality of relationships by lowering empathy, and understanding (Przybylski & Weinstein, 2012), causing conflicts, and decreasing relationship satisfaction (McDaniel & Wesselmann, 2021; Nazir & Pişkin, 2016; Roberts & David, 2016).

Research conducted by Wang et al. (2017) on married adults in China found that phubbing behavior damaged marital satisfaction and increased the risk of depression. Decreased relationship satisfaction causes depression, but the effect indirectly only lasts in adults who have been married for more than seven years. The impact of phubbing behavior was also felt by phubbing actors, such as a lack of communication skills and difficulties in establishing and maintaining eye contact with the interlocutor, which could eventually become misunderstandings in their discussions with the interlocutor (Jihan & Rusli, 2017), and negative relational evaluations for the actor (Abeele, 2020).

Several predictors indicated phubbing behavior, including age and social anxiety (Rahman, Durodani, & Guazzini, 2022). Fear of Missing Out, known as FoMO, is a form of social pressure from social media. This anxiety arises when people cannot access social media, so they cannot receive new information or activities carried out by others (Argan, M., et al., 2018; Blum, 2016). People who experienced FoMO wanted to consistently update the moment or know the latest environmental news (Fathadhika & Afriani, 2018; Sapadin, 2015). Przybylski (2013) defined FoMO as the Fear, worry, and anxiety experienced by the individual when another individual gained valuable experiences or was absent. FoMO is characterized by
always wanting to connect with the activities that others carry out (Fathadhika & Afriani, 2018; Sapadin, 2015). This feeling of anxiety and Fear made the individual unable to stop and always use smartphones to connect with social media (Balta et al., 2018; Franchina V. et al., 2018; Wolniewicz et al., 2018). People who experience FoMO will spend hours accessing social media, disrupting their daily activities (Putri et al., 2019). People with a high level of FoMO access social media to reduce their anxiety, which could lead to phubbing behavior (van Rooij et al., 2018). FoMO positively correlates significantly with phubbing behavior (Al-Saggaf, Y., 2021; Schneider & Hitzfeld, 2019).

According to the theory of determination, the occurrence of FoMO was due to unsatisfied psychological basic needs, namely (1) The need for autonomy/self, the freedom to choose his own decisions without being bound by control from others, and (2) the need for a sense of belonging/relatedness, a need that referred to a sense of interdependence in social relationships (Vansteenkiste, M., & Ryan, R. M., 2013; La Guardia & Patrick, 2008). Self-need is related to competence, autonomy, and relatedness (Deci & Ryan, 2000; La Guardia & Patrick, 2008; Ryan & Deci, 2000). Competence was the ability to act and interact with the environment effectively. At the same time, autonomy was the experience of choices, support, and desires related to starting, maintaining, and ending behavioral involvement. The need for a sense of belonging/relatedness, a need that referred to a sense of interdependence in social relationships. If not satisfied enough, these two needs could make the individual anxious and cope with using social media excessively (Aisafitri & Yusriyah, 2021; Akbar et al., 2019; La Guardia & Patrick, 2008, Ryan & Deci, 2000a,b, 2001).

Phubbing behavior is related to smartphone dependence, which requires self-control to handle and stop smartphone dependency (Chotpitayasunondh & Douglas, 2018; Latifa, Mumtaz, & Subchi, 2019). Self-control refers to a person’s ability to hold on to long-term goals by resisting external temptations that negatively affect the self (Tangney et al., 2004). Self-control was often associated with addictive behaviors, such as alcohol abuse, internet addiction, online gaming addiction, and problematic smartphone use. Somebody with a low level of self-control caused phubbing behaviors due to having difficulty controlling the use of smartphones while interacting with others (Al-Saggaf & O'Donnell, 2019). As a result, someone with difficulty controlling smartphone use will have trouble establishing positive relationships with others (Sok, Seong, & Ryu, 2019).
Research on smartphone addiction and phubbing behavior found that self-control and a sense of security were protective factors (Lai X. et al., 2022). A study conducted by Kurnia, et al. (2020) showed that a person with a high level of self-control had a low phubbing behavior; on the contrary, a person with a low level of self-control had a high phubbing behavior. Another study found that respondents' self-control was not significantly proven to predict phubbing behavior (Isrofin & Munnawaroh, 2021). These different findings became interesting to research further.

Based on the above exposure, FoMo and self-control were related to phubbing behavior, but the influence of both had not been studied in more detail. Meanwhile, the role of self-control also needs to be explored further because there were different results from previous studies (Davey S., et al., 2018; Isrofin & Munnawaroh, 2021). Therefore, this study aimed to determine whether there was a relationship between FoMO and self-control of phubbing behavior in the millennial generation. The research's hypotheses were:

(1) There was a relationship between Fear of missing out (FoMO) and self-control in phubbing behavior in the millennial generation, (2) There was an influence between Fear of missing out (FoMO) to phubbing behavior, and (3) There was an influence of self-control to phubbing behavior.

**Method**

**Design**

This study uses a design in the form of quantitative research methods. The quantitative method uses research instruments for data collection and analysis, which is quantitative/statistical, to test the established hypotheses. In this study, there are three variables, namely happiness, resilience, and emotion regulation. The dependent variable in this study is phubbing behavior, while the independent variables are self-control and FoMO.

**Participants**

Participants in this study were millennials aged 21-41 years, smartphone users, and had at least one social media account. Data was collected using accidental sampling by contacting participants directly and disseminating information through social media such as Instagram, WhatsApp, and Line. Participants willing to be involved in the research will be asked to fill out an informed consent and research
questionnaire, which is presented online via a google form.

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distributions of Participants</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Based on Table 1, the participants in this study amounted to 400 millennials aged between 21-41 years, male and female sex. The majority of respondents in the survey were women. The number of female subjects (57.5%) was primarily aged 21-31.

**Measures**

The data collection process in this study used questionnaires distributed online through a google form using three adaptation scales. The first scale measured FoMO was adapted from the Fear of missing out on the scale (FoMOs) based on the theory of Przybylski et al. (2013). The FoMOs scale has ten favorable items ($\alpha = 0.90$). The second scale was The Brief Self-Control Scale (BSCS) which measured self-control based on the theory of Tangney et al. (2004). The BSCS covered self-discipline, deliberate/non-impulsiveness, healthy habits, work ethic, and reliability. The BSCS scale has 13 items ($\alpha = 0.81$) consisting of 4 favorable and nine unfavorable things. The third scale was The three Generic Scales of Phubbing (GSP) used to measure phubbing behavior based on concepts of phubbing behavior of Chotpitayasunondh & Douglas (2018). These scales measured aspects of Nomophobia, Interpersonal Conflict, Self-Isolation, and Problem Acknowledgement. The GSP scale had 15 items ($\alpha = 0.8$), all of which were favorable.

**Data Analysis**

The data were analyzed statistically with multiple regression analysis techniques to test the relationship of the two free variables to the dependent variables, using SPSS 22 for Windows.
Result

The results of descriptive statistics (table 2) showed that the value for the FoMO variability had an average of 30 with a minimum value of 10 and a maximum value of 50. The self-control variable had an average value of 39, with a minimum value of 13 and a maximum value of 65. The phubbing behavior variable had an average of 60 with a minimum value of 15 and a maximum value of 75.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>FoMO</td>
<td>400</td>
<td>10</td>
<td>50</td>
<td>30</td>
<td>6.667</td>
</tr>
<tr>
<td>Self Control</td>
<td>400</td>
<td>13</td>
<td>65</td>
<td>39</td>
<td>8.667</td>
</tr>
<tr>
<td>Phubbing Behavior</td>
<td>400</td>
<td>15</td>
<td>75</td>
<td>60</td>
<td>15</td>
</tr>
</tbody>
</table>

Then we conducted a normality test using the Kolmogorov-Smirnov method to test whether the data distribution was normally distributed. It was found that the significance value of the Unstandardized Residual is $p = 0.060$. Therefore, the value obtained is greater than the significance value of 0.05; it can be said that the data is normally distributed.

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>Sig.</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>FoMO – Phubbing</td>
<td>36.445</td>
<td>0.000</td>
<td>Linear</td>
</tr>
<tr>
<td>Self-Control - Phubbing</td>
<td>199.775</td>
<td>0.000</td>
<td>Linear</td>
</tr>
</tbody>
</table>

Based on table 3 showed that the significant value of linearity of FoMO and phubbing behavior was 0.000 ($p < 0.05$), then the considerable weight of linearity of self-control and phubbing behavior was 0.000 ($p < 0.05$). It concluded that both relationships were linear variables.
Table 4. 
Results of Hypothesis Tests

<table>
<thead>
<tr>
<th>X</th>
<th>R²</th>
<th>F</th>
<th>Sig.</th>
<th>B</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Control</td>
<td>0.341</td>
<td>102.542</td>
<td>0.000</td>
<td>-0.920</td>
<td>-0.507</td>
<td>-12.433</td>
<td>0.000</td>
<td>Predictor</td>
</tr>
<tr>
<td>FoMO</td>
<td></td>
<td></td>
<td></td>
<td>0.457</td>
<td>0.310</td>
<td>7.609</td>
<td>0.000</td>
<td>Predictor</td>
</tr>
</tbody>
</table>

Hypothesis 1 stated that Fear of missing out (FoMO) and self-control simultaneously correlated with phubbing behavior. The results showed a significant value of 0.000 which means less than 0.05 with a value of F = 102.542 and more important than the calculated F of 3.018. Hypothesis 1 was accepted, saying there was a significant correlation between Fear of missing out (FoMO) and self-control simultaneously to phubbing behavior (see table 4). The practical contribution of self-control and Fear of missing out (FoMO) was 34.1%, and other factors influenced the rest.

Hypothesis 2 stated that FoMO partially influenced the presence of phubbing behavior. The partial t-test obtained a value of 7.609 and greater than the table t of 1.966 with a significant deal of p < 0.000. Based on the results obtained, it meant that hypothesis 2 was accepted. FoMO had an effective partial contribution to phubbing behavior (8.9%).

Hypothesis 3 states that self-control partially influenced the presence of phubbing behavior. The partial t-test obtained a value of -12.433, greater than the t-table of 1.966 with a significant deal of p < 0.000. It meant self-control contributed as much as 25.5% to phubbing behavior. It could be concluded from the partial contribution of each variable that self-control exerted higher than FoMO to phubbing behavior.

Discussion
The study found that there was no age difference in phubbing behavior. The explanation of the age difference was not related to phubbing behavior because, currently, phubbing behavior has already become a widespread practice due to the many kinds of activities supported by smartphones. It meant all millennial respondents could be stuck to their smartphones and do
phubbing, no matter how old they were (Franchina V. et al., 2018; Roberts & David, 2016). It was also because the smartphone provided various activities, such as communicating, accessing social media, educational or work needs, entertainment, and online transactions or shopping needed by people of different ages.

This study proved that self-control and Fear of missing out correlated with phubbing behavior. Both variables were internal factors of individuals that contributed 34.1% to the emergence of phubbing behavior. It meant that phubbing behavior was influenced by approximately one-third of individual internal factors. A person with high Fear of missing out (FoMO) and low self-control tends to reduce their anxiety by continuing to access social media and doing phubbing behaviors even during communication with others.

The two variables in this study represented individual internal factors, but FoMO and self-control had different functions toward phubbing behavior. FoMO became a risk factor because the higher the FoMO, the stronger the phubbing behavior—the phubbing behavior aligned with Al-Saggaf’s (2021) and Schneider & Hitzfeld’s (2019) findings. Self-control functioned the other way; the higher one’s self-control, the less the phubbing behavior. Self-control worked more as a protective factor. It reduces or prevents phubbing behavior (Lai et al., 2022). The anxiety of missing out on up-to-date information encouraged a person to stay connected with some of the media on a smartphone. When the individual’s self-control weakens, they become more impulsive (Hirschi and Gottfredson, 1993), so they cannot consistently relieve the urge to connect with their smartphone. These explained how it increased phubbing behavior.

The results of partial regression analysis from this study showed that Fear of missing out (FoMO) was also a factor influencing the emergence of phubbing behavior. The existence of smartphones alone was not a problem. Still, exciting applications inside smartphones made people spoiled and could not stop staring at their smartphone screen, such as social media platforms and instant messaging (Curtis, B.L. et al., 2019; Reski, P., 2020). Social media is a smartphone application used widely by the public, which could trigger the Fear of missing out (FoMO) (Tandon, et al., 2021; Lim, 2021). A person with a high level of FoMO tends to
experience the urge to check social media in various situations that could eventually pop-up phubbing behavior. FoMO brought an "always-on" environment for smartphone users to open social media constantly, even in the presence of others (Balta, S. et al., 2018; Franchina V. et al., 2018). Individuals with high FoMO tend to feel anxious and afraid of missing out on the latest information (Argan et al., 2018; Bisping, J., 2018; Tanhan, Ozok, and Tayiz, 2022). They were worried that others had more valuable experiences than themselves, so these made individuals want to continue to access social media with their smartphones and not leave behind all the information and activities of others on social media. This motivated individuals to continue accessing social media instead of paying attention to the communication with others that co-occurred (Roberts & David, 2019; Tandon A. et al., 2021). Conversely, individuals with low FoMO levels were not anxious, even though people have more valuable experiences than themselves, and did not have the curiosity about other people’s activities on social media so that they could free their phubbing behavior (Hura et al., 2021).

The results of the partial regression analysis also found that partial self-control influenced the appearance of phubbing behavior. Self-control is widely associated with addictive behavior, so people who do not have self-control will have difficulty controlling the use of smartphones (Benvenuti, et al., 2020; Servidio, 2019). These persons would still use smartphones, even if they interacted with others. These results were in line with the results of previous research that showed the higher the level of self-control, the lower the phubbing behavior (Chotpitayahsunond & Douglas, 2016; Hafizah, Adriansyah, and Permatasari, 2021) and did not support the results of research from Bai, Bai, Dan, Lei, & Wang (2020), which found that self-control does not affect phubbing behavior.

The characteristics of the millennial generation were very close to smartphones, so that self-control could dampen phubbing behavior. Because self-control as an aspect of self-management (Montag & Reuter, 2017) could help individuals to control addictive behavior (Mahapatra, 2019). A person with high self-control will not act impulsively (Cudo, et al., 2020) and not respond immediately to smartphone signals (Berger, Wyss, and Knoch, 2018), so he will take advantage of the time with the person in front of him and communicate by keeping eye contact. They
controlled the use of smartphones, so they were not busy with smartphones if there were no urgent things. Unlikely, a person with low self-control tends not to value communication with their interlocutor because they are kept alive with smartphones and low social connectedness (Sansevere & Ward, 2021). Self-control allows a person to control and overcome behavior that is not good, so self-control could be a buffer for the adverse impact of various risk factors on internal and external problems (Niu, et al., 2020). High self-control reduced phubbing behavior by being able to control the use of smartphones and be more adaptive.

By checking the amount of contribution between the two internal factors studied in this study, namely FoMO, and self-control, it turned out that the more substantial contribution to phubbing behavior was self-control. Self-control suggested that protective factors were still more vital than risk factors of phubbing behavior. These findings also showed the importance of continuing to develop self-control in millennials as one of the protective factors needed to reduce phubbing behavior.

The limitations of this study were still unable to detail the context of the social situation when phubbing behavior occurs, along with its considerations. The context of the social situation was thought to have contributed to the conduct of phubbing as a contextual factor. It suggested doing qualitative research and longitudinal research about the occurrence of phubbing behavior.

**Conclusion**

Fear of missing out (FoMO) and self-control correlated significantly with the millennial generation's phubbing behavior. Specifically, FoMO positively correlated with phubbing behavior, and self-control was negatively associated with phubbing behavior. These findings showed these two internal predictors of phubbing behavior had different functions. FoMO was the risk factor, and self-control was the protective factor. According to the contribution to phubbing behavior, self-control had a more substantial contribution to phubbing behavior than FoMO. It meant that if the person had sufficient self-control, even if they got FoMO, phubbing behavior could still be reduced.
Acknowledgment

The authors are grateful to Millennials who took part in this study. Besides that, this study was supported for publication by the Faculty of Psychology, University of Surabaya.

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