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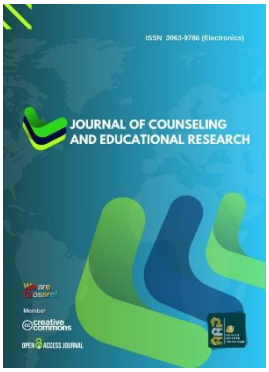

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Disorder vs Behavior : The Influence of Internet Gaming Disorder on Phubbing Behavior

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Original Article

Disorder vs Behavior: The Influence of Internet Gaming Disorder on Phubbing Behavior

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Abstract. In an era of rapid development, a phenomenon has emerged and become increasingly prevalent in the digital age. This study aims to examine the influence of Internet Gaming Disorder (IGD) on phubbing behavior among students at SMK Ksatrya Jakarta and its implications for guidance and counseling (BK) services. The research employed a quantitative descriptive method with a total sampling technique involving 93 students from grades X and XI. Used Internet Gaming Disorder scale developed based on Griffits theory and Phubbing behavior scale developed based on Karadag theory. The indicators of Internet Gaming Disorder is emotions, cognitif, and behavior and the indicators of Phubbing behavior is smartphone addiction, internet addiction, social media addiction, and online game disorder. Data were collected using validated and reliability questionnaires and analyzed using simple linear regression via SPSS 20.0. From the validity test results, it can be confirmed that all items are valid because they have a correlation coefficient (r) value greater than the r table, and the reliability test with Cronbach's Alpha of 0.954 indicates that this instrument has a good level of reliability. The data analysis tests used were the normality test, linearity test, and hypothesis test using SPSS. The results revealed a significant influence of IGD on phubbing behavior, indicated by a significance value of 0.000 (< 0.05). Thus, IGD contributes to increased phubbing behavior. The R.Square value obtained was 0.614, which means that the Internet Gaming Disorder variable has an influence of 61.4% on the Phubbing behavior variable. The implications in the context of the rising cases of Internet Gaming Disorder (IGD) and phubbing behavior among students, the role of Guidance and Counseling (GC) becomes highly crucial in creating a psychologically and socially healthy educational environment. Internet gaming disorder and phubbing not only disrupt academic achievement, but also affect students' ability to build positive social relationships. In addition, counseling and educational services should be designed to provide understanding to students, teachers, and parents regarding the negative impacts of these addictive behaviors, while also equipping them with prevention strategies and self-regulation skills. These findings highlight the need for proactive BK interventions to mitigate excessive gaming and improve students' communication.

Keywords: Internet Gaming Disorder; Phubbing; Addiction

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Introduction

In an era of rapid development, a phenomenon has emerged and become increasingly prevalent in the digital age. This behavior refers to the act of ignoring others around in order to focus on a phone or electronic device. According to the State of Mobile (2023) report released by Data.ai, Indonesians spend an average of approximately 6.05 hours per day solely on using their phones. This makes Indonesia the country with the longest phone usage duration in the world, surpassing other nations such as Thailand and Argentina, whose citizens average more than 5 hours of phone use per day (Taruna, 2023).

This phenomenon not only affects social interactions. This generation tends to spend much of their lives using technological devices and available applications to build networks and meet new people, listen to music online, watch YouTube, use video cameras, and various other devices developed in the digital era (Annisa, 2021). As a result, individuals feel that everything can be done easily just by using a smartphone, without needing to meet others in person. This leads to negative impacts on interpersonal relationships, reduces the quality of face-to-face communication, and creates emotional distance between individuals resulting in a negative behavior known as phubbing (FAKHERA et al., 2021).

The increasingly advanced development of technology has had a very significant impact, including on how individuals communicate with one another (SHELEMO, 2023). However, with all the convenience it offers, people tend to forget the negative impacts of smartphone use. A survey by the Pew Research Center found that 51% of teenagers complained about their parents' phone use, and 36% of parents also admitted that they spend too much time on their phones (Jiang, 2018). Another survey reported that 68% of parents felt distracted by their phones when spending time with their children, and 17% said this happens frequently (Brooke et al., 2020). The rapid development of technology and communication has made it easier and faster for people to interact with others. Smartphones are one of the most evident signs of technological advancement. According to data from DataReportal, the number of active smartphone users in Indonesia has increased consistently each year. In 2015, there were approximately 54 million active users. This number rose dramatically to 209.3 million in 2023. With the advancement of features and applications, smartphones also make it easier for people to carry out daily activities. Even during face-to-face gatherings, people tend to hold and use their phones rather than engage in interpersonal communication, leading to the emergence of phubbing behavior (Syafa Fadhilah, 2024).

Phubbing is a behavior that places greater importance on using a smartphone than engaging in interpersonal interaction. The term "phubbing" was first coined by a group of language experts compiling the McCann and Macquarie dictionary/catalog, and was officially included in the Macquarie Dictionary in 2012 (Hafizah et al., 2021). Phubbing refers to the act of ignoring or dismissing someone during a conversation, which can hurt the other person's feelings (Rosidah, 2020). This behavior occurs when individuals focus more on their phones while speaking to someone directly. It can harm emotional connections and worsen relationships, as those who engage in phubbing prioritize their phones over the people around them (Yusnita & Syam, 2017). According to a study by Ainil Fitri (2020) titled "The Impact of Gadget Addiction on Generation Z at SMA Negeri 9 Pekanbaru City, Riau Province in 2019", which involved 100 participants, the results showed that 25 individuals (25%) were in the "good" category, 53 individuals (53%) were in the "moderate" category, and 22 individuals (22%) were in the "poor" category. This condition led to the emergence of phubbing behavior.

The increasingly widespread phenomenon of phubbing has caused growing concern in society. The causes of this behavior stem from various factors, including the habit of phubbing during meals, meetings, or while spending time with friends or family. As noted by Feist (2018), in restaurants, for example, it is common to see couples or groups of friends who are expected to engage in warm conversations, yet some of them are preoccupied with their phones even when there is no urgent need. According to Chotpitayasunondh's (2016) theory, the factors

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behind phubbing behavior include smartphone addiction, fear of missing out (FoMO), and self-control. Another form of technology-related problem is excessive online gaming addiction. While phubbing disrupts social relationships by diverting attention away from those around us, this addiction focuses on the negative impacts of online gaming on an individual's psychological, behavioral, and overall well-being. This issue is known as Internet Gaming Disorder (Luo et al., 2022).

Internet Gaming Disorder (IGD) is a phenomenon that arises from the inability to control the use of the internet and video games, and it has become increasingly common. Online games, also known as internet gaming, have been a widely popular phenomenon since 2012, with more than 1,000,000,000 people reported to have played such games (Kuss, 2013). According to Chan & Vordere (2008), it is estimated that more than 5,000,000 internet gaming players are spread across various parts of the world, and the number continues to grow (Hussain & Griffiths, 2008).

Online games not only serve as a source of entertainment but have also become an integral part of the social and cultural lives of many people, especially among the younger generation. The ease of access and the vast variety of available games increase the exposure of individuals to online gaming, making them more susceptible to developing addictive behaviors (Boursier & Manna, 2019). Internet technology is now increasingly expanding into the realm of gaming. The incidence of gaming addiction is rising globally, including in Indonesia, where Internet Gaming Disorder affects approximately 30% of high school students. According to a survey conducted by Dr. Ksistiana Siste, around 19.3% of adolescents and 14.4% of young adults in Indonesia experience online gaming addiction. The survey, which involved thousands of children from 34 provinces, also showed an increase in the average duration of online gaming—from 7.27 hours to 11.6 hours per day (Kurniasanti, 2021). The media dependency theory explains that individuals who are highly dependent on online gaming media to fulfill their social and emotional needs tend to neglect direct interactions. This research shows that such dependency can lead to an increase in phubbing behavior, as individuals prefer to engage in virtual activities rather than interact directly with others (Velia Santoso, 2021).

Previous research by Anggrani shows that gaming addiction is not only experienced by adolescents but also by children and young adults (Kuss et al., as cited in Anggrani, 2015). Most cases occur in Asian countries, primarily affecting males aged 12–20 years. These Asian countries include mainly China and South Korea, with fewer cases reported in Europe and North America, although the estimated prevalence remains relatively high. Kuss (2013) noted that the prevalence of Internet Gaming Disorder ranges from 0.2% in Germany to 50% among Korean adolescents (Anggrani, 2015). The purpose of this study is to examine the condition of students experiencing Internet Gaming Disorder and, based on this condition, to investigate the influence of Internet Gaming Disorder on phubbing behavior. Additionally, this research aims to explore the implications for guidance and counseling (GC) in addressing the issue, as well as to serve as a foundation for developing effective programs and strategies for managing Internet Gaming Disorder behavior.

Research on the influence of Internet Gaming Disorder (IGD) on phubbing behavior is important because both phenomena reflect the tangible impact of excessive digital technology use on the quality of social interactions, particularly among adolescents and college students. Investigating the relationship between IGD and phubbing allows researchers to identify whether gaming addiction is a predictive factor for phubbing behavior, as well as to understand the underlying psychological mechanisms such as emotion regulation, social anxiety, or the need for digital validation. The findings of this research can provide practical contributions to the fields of education and counseling, as they can serve as a foundation for interventions aimed at helping students manage technology use in a healthy way and prevent the decline of face-to-face social relationships. Furthermore, these findings are also relevant in the context of families and society at large, highlighting the importance of awareness regarding healthy interaction patterns in the digital age.

Research on the influence of Internet Gaming Disorder (IGD) on phubbing behavior is important not only due to its urgency in the context of digital social life, but also because there is still a lack of studies that specifically examine the direct relationship between these two variables, especially among adolescents and students in Indonesia. However, few studies have explicitly investigated how addiction to online gaming (IGD)—which involves a different addictive mechanism compared to social media use—can directly trigger phubbing behavior. This presents a relevant research gap to be addressed. By examining the influence of IGD on phubbing, this study not only broadens the understanding of the negative consequences of excessive gaming behavior, but also complements previous literature that has primarily focused on communication technology and social media use. Therefore, this research holds theoretical value in enriching the body of literature on digital addictive behaviors, and also offers practical implications for designing preventive interventions within educational and family settings to reduce the negative impact of IGD on the quality of social interactions.

Method

This type of research is used quantitative descriptive research on Ksatrya High School sutdents in Jakarta. The sample in this study amounted to 93 student. Students in the research sample aged 15-17 years with sampling used totaling sampling technique. The model used in this study is the Likert scale. The quantitative research use in this study is survey, aimed to collecting data directly from respondents through the distribution of quistionaires.

Participants

The population referred to by the research is all students in Grades 10 and 11 of SMK Ksatrya Jakarta in the 2024/2025 academic year totaling 93 students. Grade 12 were not included as the population because they were in their graduation period.

Sampling Procedures

The research employed a quantitative descriptive method with a total sampling technique involving 93 students from grades X and XI. The result thatthe sample in this study amounted to 93 students at SMK Ksatrya Jakarta

Materials and Apparatus

This data was collected through two questionnaires, including a internet gaming disorder instrument that I adopted from (Adhyaksa&Valentina, 2023) using Internet gaming Disorder scale developed based on theory (Griffiths, 2005) with 28 items and a phubbing behavioral scale instrument developed based on theory (Karadag., 2015) with 28 items.The assessment criteria for the statement have 5 answer alternatives, namely for positive statements (favorable) and negative statements (unfavorable) have the following values: always, often, sometimes, rarely and never. The results of SPSS analysis on the internet gaming disorder instrument show that item reliability is 0.954 from 28 items, ex : I feel excited when playing games. So the items on the instrument that have been tested are declared reliable because they meet the prerequisite criteria for the reliability test, namely > 0.50 with the level of relationship being in the strong category, meaning that the instrument has good quality for measuring internet gaming disorder. The results of the SPSS analysis on the phubbing instrument showed that item reliability was 0.906 from 28 items, ex : I prefer looking at my phone rather than interacting with my friends. So the items on the instrument that had been tested were declared reliable because they met the

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prerequisite criteria for the reliability test, namely > 0.50 with the level of influence being in the very category. strong, meaning the instrument has good quality.

Procedures

The materials and equipment used by researchers in conducting research were using mobile phones, then distributing questionnaires via Google Form. The independent variable is Internet Gaming Disorder and the dependent variable is Phubbing behavior. This research aims to see how internet gaming disorder influences phubbing behavior. The researcher's role during the research was to provide instructions on how to fill out the Google Form regarding attitude statements with the options is always, often, sometimes, rarely and never with the number of variables each being 28 items.. Then what students do when filling out the Google Form is about themselves.

Design or Data Analysis

The method used in this study uses a quantitative approach with a regrations research type, so it used the simple regration linear statistical method to see the influence between Internet Gaming Disorder and Phubbing. Data analysis in this study was carried out using the SPSS program to test validity, reliability, and perform statistical analyses as required by the research.

Results and Discussions

An in-depth analysis internet gaming disorder on phubbing behavior. Based on the distribution of the internet gaming disorder questionnaire to 93 students at SMK Ksatrya Jakarta with 28 statement items, the lowest score was 49 and the highest score was 119. This score was then used as a basis for determining the categorization of data on internet gaming disorder which is presented in table 1.

Table 1. Descriptions of Internet Gaming Disorder

Interval Score	Category	Frequency	%
≥116	Very High	3	3.22
95-116	High	15	16.12
73-94	Medium	43	46.23
51-72	Low	30	32.25
≥50	Very Low	2	2.15
Total		93	100

Based on the descriptive table above, the scores obtained from 93 respondents with valid data for variable X, namely Internet Gaming Disorder, show the following distribution: 2 students (2.15%) were in the very low category, 30 students (32.25%) were in the low category, 43 students (46.23%) were in the moderate category, 15 students (16.12%) were in the high category, and 3 students (3.22%) were in the very high category. Therefore, it can be concluded from the table that the level of Internet Gaming Disorder among students at SMK Ksatrya Jakarta falls within the medium category. This score is then used as the basis for determining the categorization of bullying behavior data which is presented in table 2

Table 2. Descriptions of Phubbing

Interval skor	Kategori	Frekuensi	%
≥116	Very High	5	5.37
95-116	High	35	37.63
73-94	Medium	29	31.18
51-72	Low	24	25.80
≤50	Very Low	0	0
Total		93	100

Based on the results of the descriptive table above show that the scores obtained from 93 respondents with valid data for variable Y, namely Phubbing Behavior, are as follows: 0 students (0.00%) were in the very low category, 24 students (25.80%) were in the low category, 29 students (31.18%) were in the moderate category, 35 students (37.63%) were in the high category, and 5 students (5.37%) were in the very high category. Therefore, it can be concluded from the table that the level of Phubbing Behavior among students at SMK Ksatrya Jakarta falls within the high category. on regression analysis using SPSS 20 software, the following results were obtained.

Table 3. Results of the Determination Coefficient (Modal Summary)

Model	R	R.Square	Adjusted R Square	Std. Error of the Estimate
1	.783[a]	.614	.610	10.90633

Based on the table, the R Square value is 0.614, which means that the Internet Gaming Disorder variable has an influence of 61.4% on the Phubbing Behavior variable. The remaining 38.6% is influenced by other variables that were not examined in this study.

Table 4. Results of Anova Regression Analysis

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regresion	17207.299	1	17270.299	144.662	.000
	Residual	10824.271	91	118.948		
	Total	28031.570	92			

The significance test table above is used to determine the level of significance or linearity of the regression. The decision-making criteria are as follows: if the significance value (Sig.) is less than 0.05, it indicates that variable X has an effect on variable Y. Conversely, if the significance value (Sig.) is greater than 0.05, it indicates that variable X has no effect on variable Y. Based on the results of the simple linear regression test above, the obtained significance value is 0.000. Since Sig. < 0.05, this indicates that there is a significant influence of variable X (Internet Gaming Disorder) on variable Y (Phubbing Behavior). To further see the regression equation, see table 5 below.

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Table 5. Results of Regression Equations (Coeffients)

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
Model	B	Std. Error	Beta		
1	22.270	4.907	.783	4.538	.000
IGD_X	.729	.061		12.028	.000

Based on the data analysis in the table above, the regression equation is as follows: Y = a + bX, thus Y = 22.270 + 0.729X. According to this equation, the constant value is 22.270. Systematically, this means that when Internet Gaming Disorder increases by 1 unit, the Phubbing Behavior is influenced by a value of 22.270. The positive value (0.729) in the regression coefficient of the independent variable indicates that the direction of influence between the independent and dependent variables is positive—meaning that for every 1 unit increase in Internet Gaming Disorder, Phubbing Behavior is predicted to increase by 22.270. From the output above, it is shown that the t-value = 12.208 with a significance value of 0.000 < 0.05, indicating that the independent variable (X) Internet Gaming Disorder has a significant effect on the dependent variable (Y) Phubbing Behavior. The results indicate that H_0 is rejected and H_a is accepted.

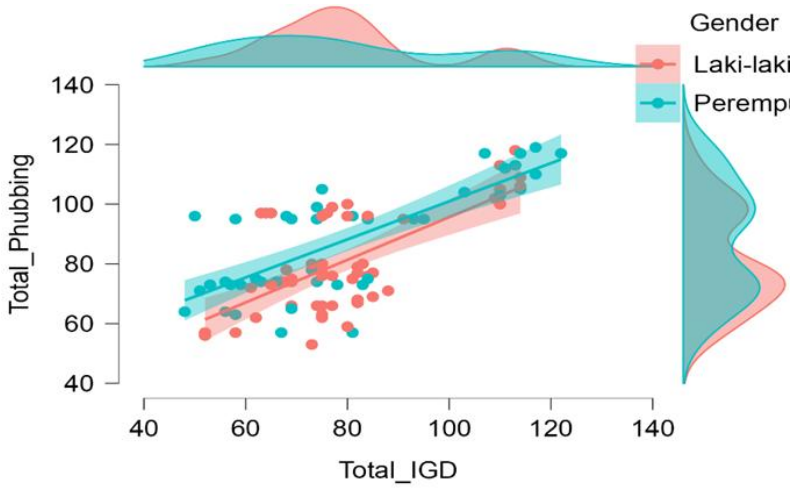

Figure 1. Internet Gaming Disorder - Phubbing based on Gender

Based on the data visualization in the form of a scatter plot between the variables Internet Gaming Disorder (IGD) and Phubbing, it can be seen that there is a positive relationship between the two variables. This means that the higher a student's IGD score, the higher their tendency to engage in phubbing behavior.

The graph also distinguishes data based on gender, namely male (represented in pink) and female (in blue). The linear regression lines for both groups show an upward trend, indicating that both male and female students tend to show an increase in phubbing behavior as their gaming addiction level increases. However, the visualization shows that the regression line for the female group has a steeper slope, with more tightly clustered data points. This suggests that the relationship between IGD and phubbing is stronger among female students compared to male students. In contrast, the male group shows a more dispersed data distribution and a flatter regression line, indicating that while there is still a relationship, its strength is not as pronounced as in the female group. Additionally, the shaded areas around the regression lines (confidence interval at 95%) indicate that the prediction model is relatively stable and consistent. This means that the observed trend has a high level of confidence and can be used as a basis to conclude a connection between online gaming addiction and phubbing behavior among students.

Therefore, this scatter plot reinforces the assumption that Internet Gaming Disorder is a contributing factor to phubbing behavior, particularly among female students who show a stronger relationship between the two variables. The results of the data analysis, which were collected and reviewed based on the obtained data, show that Internet Gaming Disorder has a significant influence on Phubbing behavior among students at SMK Ksatrya Jakarta.

This is indicated by the results of hypothesis testing using simple linear regression. Based on the results of the regression test between Internet Gaming Disorder and Phubbing behavior among students, the obtained significance value was 0.000. Since the significance value (Sig.) is less than 0.05, this indicates that there is a significant influence between variable (X) Internet Gaming Disorder and variable (Y) Phubbing. The R Square value was 0.614, which means that the Internet Gaming Disorder variable contributes 61.4% to the Phubbing behavior variable. Therefore, the results show that H_0 is rejected and H_a is accepted.

As in the research conducted by Shella Madjid (2020), which discusses "The Influence of Online Games on Phubbing Behavior Among Adolescents in Bukit Indah Subdistrict, Soreang District, Parepare City." This study aimed to examine and describe whether online games have an influence on phubbing behavior. Based on the research findings, it can be concluded that the hypothesis testing resulted in a t-count value of 7.63 and a t-table value of 0.235, thus Ha is accepted. From the linear regression calculation, the result was b = 0.468 (46%) with a significance level of 0.000, meaning that the use of online games has a positive and significant influence on adolescent phubbing behavior in Bukit Indah Subdistrict, Soreang District, Parepare City (Firdausi, 2020). As in the study conducted by Gouwtama (2022), the aim was to determine the influence of social media usage intensity and addiction on phubbing behavior in the DKI Jakarta Province.

The method used was a survey method with a probability sampling technique involving 400 respondents. The hypothesis test results showed that the intensity of social media use had a positive, significant, but weak influence on phubbing behavior, amounting to 11.4%. Meanwhile, social media addiction had a positive, significant, and strong influence, accounting for 45.1% of the variance in phubbing behavior. These figures indicate that both the intensity and addiction to social media use significantly affect phubbing behavior (Gouwtama, 2022). An analysis was conducted on responses from a total of 622 adolescents (average age = 15.9 years; 54.8% female and 45.2% male). The findings revealed a significant relationship between phubbing, social exclusion, and self-regulation. The results of the study indicated that social exclusion and self-regulation sequentially mediated the relationship between exposure to phubbing and engagement in phubbing behavior. Based on these findings, greater attention should be given to adolescents' experiences of social exclusion and their self-regulation abilities for the prevention and intervention of phubbing (S. R. Putri & Rina, 2023)..

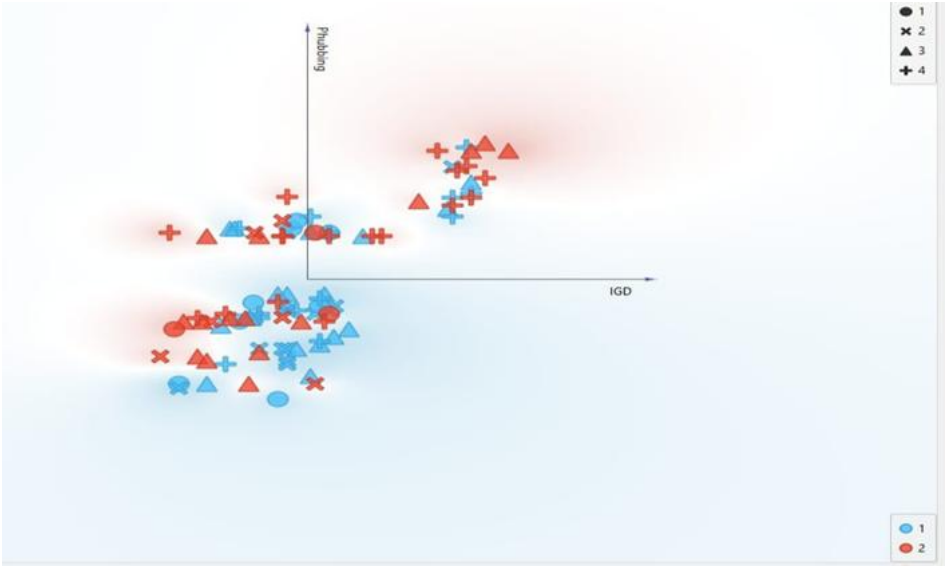

Figure 2. Linear Projections Internet Gaming Disorder-Phubbing

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The Linear Projection graph from the relationship between two main variables: Internet Gaming Disorder (IGD) on the horizontal axis and Phubbing on the vertical axis. The colors on the graph represent gender, with blue indicating males (code 1) and red indicating females (code 2). The shapes of the symbols represent mobile phone usage duration categories: circles for 3–4 hours (code 1), crosses for 5–6 hours (code 2), triangles for 7–8 hours (code 3), and plus signs for more than 8 hours (code 4).

Overall, two main clusters are visible: one in the lower-left area representing low IGD and Phubbing values, and another in the upper-right area with high IGD and Phubbing values. This pattern indicates a positive correlation between IGD and Phubbing, where individuals with higher IGD scores also tend to show higher Phubbing tendencies. Furthermore, individuals who use mobile phones for longer durations—especially those represented by triangles and plus signs (7–8 hours and >8 hours)—are more concentrated in the cluster with high IGD and Phubbing scores. This suggests that longer mobile phone usage is associated with higher levels of IGD and Phubbing. In terms of gender, females (red) appear more frequently in the high IGD and Phubbing cluster, whereas males (blue) tend to be more concentrated in the lower IGD and Phubbing cluster. This indicates that, within this dataset, females are more vulnerable to IGD and Phubbing than males. In conclusion, this graph reveals an interconnected relationship between IGD, Phubbing, mobile phone usage duration, and gender, all of which contribute to varying levels of susceptibility to digital behavior disorders and related social interactions.

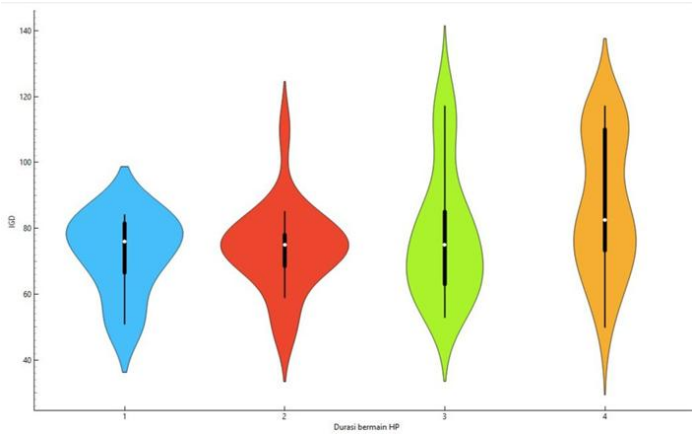

Figure 3. Violin Plot Internet Gaming Disorder

The Violin Plot above shows the distribution of Internet Gaming Disorder (IGD) scores based on different categories of mobile phone usage duration. The horizontal axis represents four duration categories: Category 1: 3–4 hours, Category 2: 5–6 hours, Category 3: 7–8 hours, Category 4: more than 8 hours. Meanwhile, the vertical axis displays the IGD scores. Each "violin" shape represents the data density or distribution of IGD scores for each duration category. Inside each violin, the box plot indicates the interquartile range (IQR), median, and the minimum–maximum spread of the data.

Based on the visualization, it can be concluded that the longer the mobile phone usage duration, the higher the IGD scores among respondents. This is shown by the upward shift of the median and the wider spread of IGD scores in the higher-duration categories (categories 3 and 4). Category 4 (more than 8 hours) shows the highest and most varied distribution of IGD scores, indicating that individuals in this group tend to have a greater and more diverse risk of IGD. On the other hand, Category 1 (3–4 hours) shows a narrower and lower distribution of IGD scores, indicating a lower risk of IGD in this group. This pattern suggests a positive relationship between mobile phone usage duration and the level of gaming addiction (IGD)—the longer a person uses their phone daily, the higher their likelihood of experiencing problematic gaming behavior.

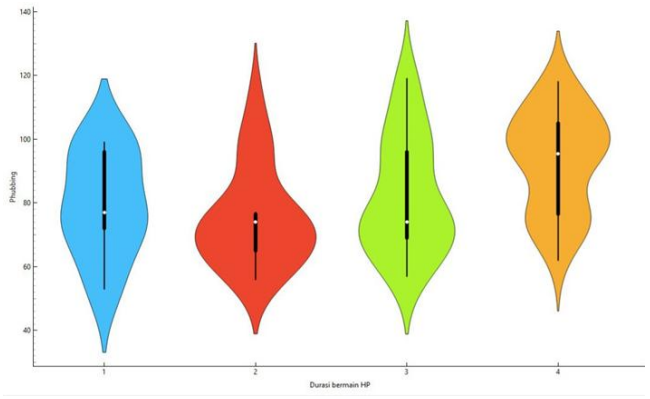

Figure 4. Violin Plot Phubbing

The Violin Plot above illustrates the distribution of Phubbing scores based on mobile phone usage duration categories. The horizontal axis represents four usage categories: Category 1: 3–4 hours, Category 2: 5–6 hours, Category 3: 7–8 hours, Category 4: more than 8 hours. The vertical axis shows the phubbing scores. Each violin shape represents the data density for phubbing in each category, while the box plot inside indicates the median, interquartile range (IQR), and the minimum–maximum values.

From the graph, it is evident that Category 4 (more than 8 hours) has the highest median and widest phubbing score range, indicating that the longer individuals use their phones, the more likely they are to engage in phubbing behavior. Category 3 (7–8 hours) also shows a broad distribution, although its median is slightly lower than Category 4. Interestingly, Category 2 (5–6 hours) has the lowest median, suggesting that this group tends to have the lowest phubbing scores among all categories. This is notable since Category 1 (3–4 hours) has a higher median than Category 2, though still lower than Categories 3 and 4. This may indicate that the relationship between phone usage and phubbing is not strictly linear, but tends to increase sharply after exceeding 6 hours of daily usage. Overall, the graph suggests that phubbing is more common among individuals who use their phones for more than 6 hours a day, highlighting the importance of balancing technology use with healthy social interactions.

Based on research data by Salli putri karisma (2025) the rapid development of technology, especially smartphones, has brought significant changes to the daily lives of students, both positively and negatively. One of the emerging negative impacts is the phenomenon of phubbing, which refers to the act of ignoring others in favor of engaging with a smartphone. The purpose of this study is to describe the contribution of smartphone addiction on phubbing behavior in students. The sample of this study was 225 grade VII students. Data on smartphone addiction and phubbing behavior were collected through two questionnaires, including the smartphone addiction instrument which amounted of 16 items and the phubbing behavior instrument which amounted of 15 items. Data were analyzed using SPSS software with linear regression techniques. The findings in this study are the significant contribution given by smartphone addiction to phubbing behavior, seen from the contribution given by smartphone addiction of 66% to phubbing behavior. In addition, the regression coefficient is positive, so it can be stated that an increase in smartphone addiction causes an increase in phubbing behavior (Karisma et al., 2025).

Also based on the research conducted by Yuda Syahputra (2020) In today's digital era, it has become a common habit for individuals to use smartphones to perform many tasks that were previously limited to their desks, including searching for flights while exercising, shopping, ordering food, watching talk shows from bed, and chatting with social media groups. This study was designed to validate and measure the psychometric properties of the Indonesian version of

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the Phubbing Scale (PS). The research employed a survey method and was conducted from August to September 2019, involving 404 participants in Indonesia. In this study, the Rasch Model was used to assess the psychometric characteristics of the 20 PS items, with the assistance of WINSTEPS 3.73 software. The results of the study indicate that the Phubbing Scale (PS) meets the psychometric measurement aspects, providing evidence that it is a valid and reliable instrument, with an excellent item reliability value (.99) and good person reliability (.89) for measuring phubbing behavior. The items in the PS are considered representative in assessing phubbing. The implication of this study is that the PS can be accepted by researchers for collecting data or information related to phubbing issues in Indonesia (Syahputra et al., 2020).

The research by Afdal (2019) Along with technological advancements and increasingly modern times, ways of communicating between individuals have changed. Individuals communicate no longer directly with their interlocutors, but individuals prefer to communicate through social media with the help of a Smartphone. This phenomenon mostly occurs in the millennial generation called phubbing. This condition is caused by various factors, including smartphone addiction, lack of self-control and so on. Phubbing behaviour can cause the millennial to be indifferent to others, delay, short attention span, depression or other mental disorders. This type of research is library research that focuses on phubbing behaviour. one of the psychological interventions that can be done is through guidance and counseling services. Guidance and counseling services are needed to focus on behavioural media, so that individuals can use smartphones smartly (Afdal et al., 2019).

As in the study conducted by Nurmawita Loi (2024) entitled "The Influence of Online Games on Phubbing Behavior among Students of Tjut Nyak Dhien University Medan." The purpose of this study was to determine the influence of online games on phubbing behavior among students at Tjut Nyak Dhien University Medan. The research used a quantitative method with a sample of 96 students from the university. Data analysis techniques included statistical tests such as the Validity Test and Reliability Test for the questionnaires, as well as Simple Linear Regression Analysis using F-test and t-test to test the hypotheses. The results showed that online games have a positive influence on phubbing behavior among students at Tjut Nyak Dhien University Medan (Loi & Lubis, 2024).

As in the study conducted by Shella Madjid (2020) titled “The Influence of Online Games on Phubbing Behavior among Adolescents in Bukit Indah Village, Soreang Sub-district, Parepare City.” This research aimed to observe and describe whether online gaming has an effect on phubbing behavior. The study used a quantitative approach, with data in the form of numerical values analyzed through descriptive analysis and simple linear regression. Using the Slovin formula with a 5% margin of error, a total sample of 70 adolescents was selected, considered representative of the population. Based on the results, the hypothesis test showed a t-value of 7.63 and a t-table value of 0.235, indicating that Ha was accepted.

The aim of this study was to determine the relationship between the level of online game addiction and the occurrence of asthenopia (eye strain) among high school students in Medan City. This study was an analytical observational research using a cross-sectional approach, conducted from May to December 2015. The sampling technique used was quota sampling, with a total of 34 participants. Data were collected through questionnaires, and a visual acuity test using the Snellen Chart was conducted beforehand. Based on the Spearman correlation test, the results showed a significant relationship between the level of online game addiction and the occurrence of asthenopia among high school students in Medan, with a p-value = 0.003 ($p < 0.005$) and a correlation coefficient (r) of 0.497, indicating a moderate correlation. The conclusion of the study is that there is a positive correlation between the level of online game addiction and the occurrence of asthenopia among high school students in Medan City (Anggraeni, 2017).

The study utilized instruments that had been adapted into Indonesian, including the Smartphone Addiction Scale–Short Version (SAS-SV) developed by Kwon et al. (2015) and the Phubbing Behavior Scale by Karadag (2015). This quantitative research involved 125

respondents selected through purposive sampling, with participants drawn from the 2017 cohort of Psychology students at the State Islamic University of Malang. The findings revealed that 84.8% of students (106 individuals) fell into the low smartphone addiction category, while 15.2% (19 individuals) were in the high category. In terms of phubbing behavior, 67.2% (84 students) were classified as moderate, 18.4% (23 students) as high, and 14.4% (18 students) as low. The correlation analysis showed a strong positive relationship between smartphone addiction and phubbing behavior, with a correlation coefficient (R) of 0.773. This suggests that as smartphone addiction increases, phubbing behavior also tends to increase. The coefficient of determination (R^2) was 0.597, indicating that 59.7% of the variance in phubbing behavior could be explained by smartphone addiction, while the remaining 40.3% was influenced by other factors beyond the scope of this variable (Piru et al., 2024).

The study about phubbing can be described as an individual looking at his or her mobile phone during a conversation with other individuals, dealing with the mobile phone and escaping from interpersonal communication. In this research, determinants of phubbing behavior were investigated; in addition, the effects of gender, smart phone ownership and social media membership were tested as moderators. Methods: To examine the cause–effect relations among the variables of the theoretical model, the research employs a correlational design. Participants were 409 university students who were selected via random sampling. Phubbing was obtained via the scales featuring mobile phone addiction, SMS addiction, internet addiction, social media addiction and game addiction. The obtained data were analyzed using a correlation analysis, multiple linear regression analysis and structural equation model. Results: The results showed that the most important determinants of phubbing behavior are mobile phone, SMS, social media and internet addictions. Discussion: Although the fi ndings show that the highest correlation value explaining phubbing is a mobile phone addiction, the other correlation values refl ect a dependency on the phone. Conclusions: There is an increasing tendency towards mobile phone use, and this tendency prepares the basis of phubbing. This research was conducted on 401 participants. Of the participants, 114 were male (28,4%), whereas 287 were female (71.6%). Their average age was 21.9. In total, 70% of the participants owned a smart phone, 92% were using social media, and 75% were spending 2 hours or more in the Internet (Karadağ et al., 2015).

Similarly, researchers in Turkey also intervened early in addressing the impact of phubbing among university students by adapting the Generic Phubbing Scale (GPS) to Turkish culture ($\chi^2/df = 2.61$, GFI = 0.92, IFI = 0.95, CFI = 0.95, NFI = 0.92, AGFI = 0.89, TLI = 0.93, and RMSEA = 0.070) and testing phubbing levels in relation to several variables, namely: smartphone addiction, fear of missing out (FoMO), and boredom (Yam & Kumcağız, 2020). This aligns with researchers in Spain, who developed the Spanish version of the Phubbing Scale using confirmatory factor analysis to identify the most appropriate model for measuring phubbing. Model 2 showed a better fit than Models 1a and 1b (Blanca & Bendayan, 2018). The CFI and NNFI values approached 0.95, although the RMSEA index exceeded 0.08 in Model 2a. However, the indices for the new model demonstrated good results, with CFI and NNFI values above 0.95 and an RMSEA index of 0.061 (Blanca & Bendayan, 2018).

Implications

In the context of the rising cases of Internet Gaming Disorder (IGD) and phubbing behavior among students, the role of Guidance and Counseling becomes highly crucial in creating a psychologically and socially healthy educational environment. Internet gaming disorder and phubbing not only disrupt academic achievement, but also affect students' ability to build positive social relationships. Therefore, school counselors need to conduct early identification of students showing signs of gaming addiction and dependence on digital devices through observation, questionnaires, or interviews. In addition, counseling and educational services should be designed to provide understanding to students, teachers, and parents regarding the

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negative impacts of these addictive behaviors, while also equipping them with prevention strategies and self-regulation skills. It is also recommended that counselors offer individual and group counseling services to assist affected students, focusing on the development of social skills, emotional regulation, and the formation of healthy life goals. Evaluation and follow-up of the counseling program also need to be conducted regularly to ensure the effectiveness of the interventions provided. If necessary, students should be referred to professionals such as psychologists or psychiatrists

Conclusions

The level of Internet Gaming Disorder (IGD) among students at SMK Ksatrya who participated as respondents falls into the moderate category, at 46.23%, with a significant proportion indicating a tendency toward addictive behavior related to online gaming. Phubbing behavior was also found to be at a relatively high level, at 37.63%, as reflected by the respondents' habit of ignoring direct social interactions in favor of using their smartphones particularly when playing games. The results of the statistical analysis indicate that Internet Gaming Disorder has a significant influence on phubbing behavior. Students with higher levels of Internet Gaming Disorder tend to engage in phubbing more frequently, especially in social, academic, and family contexts. These findings indicate that Internet Gaming Disorder can serve as a predictive factor for the increase in phubbing behavior, through mechanisms such as diverted attention, avoidance of direct social interaction, and dependence on digital devices.

Internet Gaming Disorder significantly affects students' phubbing behavior. This underscores the necessity for proactive counseling strategies that address the root causes of digital addiction and promote healthier social interaction habits. The study encourages educators and counselors to collaborate in designing effective preventive measures. And for the next researchers are advised to broaden the research subjects by involving a more diverse population and to consider other mediating or moderating factors, such as self-esteem, social anxiety, or emotion regulation, in the relationship between Internet Gaming Disorder and phubbing.

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