

Original Article

The Effect of Internet Gaming Disorder on Verbal Aggression among Indonesian Senior High School Students

Syahrul Fahmi Ramadhan, Yuda Syahputra, Farouq Faturrahman
Universitas Indraprasta PGRI, Jakarta, Indonesia

Abstract. The rise in verbal aggression among adolescents has become a significant problem in today's digital world, particularly in relation to high levels of online gaming activity. This study examines how Internet Gaming Disorder (IGD) affects verbal aggression among 10th-grade students at SMAN 39 in East Jakarta. A quantitative correlational method was used, involving 178 students selected through simple random sampling. Data were collected via a Likert-scale questionnaire and analyzed using descriptive statistics, normality tests, and simple linear regression. The results indicate that Internet Gaming Disorder has a significant effect on verbal aggression, with an R^2 value of 0.131, indicating that IGD accounts for 13.1% of the variation in verbal aggression. Meanwhile, 86.9% of the variation in verbal aggression is influenced by other factors outside the research model. These results underscore the need to address excessive gaming habits while considering other psychological and situational influences. This study provides valuable insights for educators and schools in designing approaches to reduce aggressive behavior among adolescents.

Keywords: Internet Gaming Disorder (IGD), Verbal Aggression, Student

Corresponding author: Syahrul Fahmi Ramadhan, Email: fahmi.rmdhn04@gmail.com, Universitas Indraprasta PGRI, Indonesia



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Introduction

Changes in social and cultural dimensions resulting from globalization have given rise to new patterns in adolescents' lives, particularly in their interactions, emotional expression, and use of technology. Adolescence, which serves as a bridge to adulthood, is often marked by emotional turmoil, a search for identity, and various pressures both academic and social. Such an environment can lead to increased stress and frustration, which in turn can trigger aggressive behavior (Nurhalimahet et al., 2023). According to data from the Indonesian Ministry of Health, approximately 34 to 35 percent of adolescents exhibit symptoms of moderate to severe stress or emotional problems, which can serve as potential risk factors for various behavioral issues (Jenderal, 2022). Furthermore, a report from the Central Statistics Agency Hadi et al. (2024) highlights the rise in negative emotions among young people, while also emphasizing the link between psychosocial stress and the tendency toward aggressive behavior.

Aggressive behavior is behavior carried out with the intent to harm or cause harm to others, whether physically or psychologically (Anderson & Bushman, 2002). This behavior can manifest in various forms, depending on the situation and the individual experiencing it. During adolescence, the likelihood of aggressive behavior is relatively higher because adolescents are in a developmental phase marked by significant physical, emotional, and social changes (Elisya

et al., 2025). These changes can affect adolescents' ability to control their emotions and behavior, making them more prone to displaying aggressive responses in certain situations.

One type of aggressive behavior commonly observed in adolescents is verbal aggression. The rapid physical, emotional, and psychological changes that occur during adolescence often prevent adolescents from managing their emotions effectively, leading to verbal aggression (Zulfa et al., 2024). Myers & Twenge (2020) define verbal aggression as behavior intended to hurt others through words, including insults, belittling remarks, or threats. When faced with frustrating circumstances or unfavorable situations, adolescents often express their emotions through verbal aggression.

Faupel (2011) states that emotions are one aspect of human development. Denson & Fabiansson (2023) define anger as an emotional response to a real or perceived threat or to a provocation. Lench (2004) states that students with high levels of emotion tend to have destructive coping strategies, express anger by attacking others both physically and verbally are more likely to be defiant and exhibit negative behavior, and experience conflicts with others more frequently. Anger or emotions that cannot be properly controlled result in high levels of aggressive behavior, in which students do not hesitate to attack and hurt others; such behavior indicates that students have very poor self-control.

A study by Choudhary et al., (2022) found that 31.8 percent of junior high school students engage in verbal aggression. Another study reported an even higher figure, with 48.3 percent of adolescents showing a tendency toward verbal aggression in the school setting (Halimatussakdiah, 2024). Additionally, Rusminah et al. (2024) found that approximately 15 percent of middle and high school students exhibited verbal aggression during academic activities. A study conducted by Salsabela et al. (2025) also showed that feelings of frustration while playing online games are closely linked to increased verbal aggression among high school students, highlighting that frustration is a key factor influencing such behavior.

The occurrence of verbal aggression is becoming increasingly evident in educational settings. Ananta et al. (2025) During adolescence, verbal aggression tends to emerge alongside developmental processes characterized by the search for self-identity, rapid emotional changes, and a tendency toward impulsive behavior. These conditions make it easier for adolescents to express anger, frustration, or conflict through words that hurt others. In addition to being influenced by individual developmental factors, verbal aggression is also related to social environmental conditions and media exposure. An unsupportive environment and high levels of media exposure can reinforce adolescents' tendency to exhibit verbally aggressive behavior.

Research by Nurjanah & Suharso (2023) shows that even though students have a high level of self-control (73%) and good empathy (69%), the media still influences the occurrence of verbal aggression (68%). These findings suggest that self-control alone is not sufficient to prevent verbal aggression when adolescents are in an unfavorable environment or are frequently exposed to content that depicts aggressive behavior.

The phenomenon of verbal aggression among adolescents is also reflected in data from the Indonesian Child Protection Commission (KPAI), which recorded 176 cases of children as perpetrators of psychological violence during the period from 2011-2018 (King et al., 2020). Advances in technology and social media have expanded the forms of verbal aggression, including teasing peers, using profanity, defying teachers, and engaging in cyberbullying. These data indicate that verbally aggressive behavior is not merely a minor issue but has become a significant concern in the context of child and adolescent protection. In daily life, verbal aggression can manifest in various forms, such as taunting, insults, the use of profanity, threats, and cyberbullying. If this behavior continues to be viewed as normal, it can hinder the development of healthy social relationships within the school environment.

Forms of verbal aggression in educational settings include insults, threats, taunts, mockery, and the spreading of harmful rumors that can cause emotional harm to others (Ananta et al., 2025). Research by Ramadhani (2021) reveals that verbal aggression can occur not only among students at school but can also be directed at teachers through taunts, shouting, and the use of

inappropriate language during class. This behavior disrupts the classroom atmosphere and interpersonal dynamics. UNESCO (2020) highlights that emotional abuse in educational settings includes taunting, insults, derogatory terms, and the spreading of false information all of which are classified as verbal aggression. Therefore, this should not be considered acceptable behavior but rather a form of emotional bullying that has a detrimental impact on individuals and the school climate.

The impact of verbal aggression not only affects social interactions but also creates a threatening educational environment. Sari et al., (2023) explains that repeated exposure to hostile acts can desensitize individuals to such behavior, thereby fostering the belief that aggression is normal. However, such behavior does have negative implications because it is harmful and causes discomfort. Saputra & Handaka (2020) show that high levels of aggression can foster an unsafe environment, whereas lower levels of aggression actually promote a more supportive atmosphere. Therefore, addressing aggressive behavior requires not only resolving individual incidents but also support from a positive environment.

Both locally and globally, youth aggression has become a cause for serious concern. Data from the Indonesian Child Protection Commission (KPAI) show an increase in incidents of youth violence, from 896 cases in 2016 to 1,084 cases in 2018, although there was a slight decline in 2020 due to social restrictions caused by the pandemic. In addition, figures from the Central Statistics Agency (BPS) show that acts of violence among those aged 11 to 24 increased from 11,685 in 2019 to 12,944 in 2020. Globally, UNESCO reports that more than 30% of students worldwide have experienced bullying or violence at school, with approximately 246 million children affected each year (UNESCO, 2020). These statistics illustrate that adolescent aggression is a problem that requires immediate attention.

Verbal aggression among adolescents is influenced not only by individual developmental factors and the social environment, but also by the rapid advancement of digital technology. In this context, the use of digital technology particularly online games can be one of the factors contributing to the emergence of aggressive behavior among adolescents. This suggests that verbal aggression cannot be understood solely from the perspective of individual psychology; it is also necessary to consider the influence of the digital environment, which is becoming increasingly dominant in the lives of adolescents (Putra & Hartono, 2024).

One aspect of the impact of digital technology that has received significant attention is the habit of excessive online gaming, which can develop into Internet Gaming Disorder (IGD). Internet Gaming Disorder is a behavioral condition characterized by an individual's inability to control excessive online gaming, which disrupts various aspects of life, such as daily activities, social interactions, and academic performance (Fajar et al., 2024). These conditions indicate that gaming is no longer merely a form of entertainment, but has evolved into a compulsive behavior that can have negative effects on adolescents' psychological well-being, behavior, overall well-being, and the quality of their social interactions (Pratiwi et al., 2025).

The development of internet gaming disorder in adolescents can begin with the habit of playing digital games in their free time, which can then potentially develop into a pattern of use that becomes increasingly difficult to control (Ifdil et al., 2024). Wiguna & Herdiyanto (2018) explain that gaming addiction does not occur suddenly, but rather through a gradual process from intense engagement to compulsive behavior. Furthermore, adolescents are a group vulnerable to IGD because, at this stage of development, they possess a high level of curiosity, tend to seek pleasurable experiences, and are drawn to the interactive and competitive aspects offered by online games (Király et al., 2017).

Furthermore, Internet Gaming Disorder (IGD) has various implications for adolescents' lives, including increased aggression, social isolation, and a decline in academic performance; therefore, this condition warrants attention in prevention and intervention efforts (Ifdil et al., 2024). Exposure to competitive and conflict-ridden game content, frustration resulting from defeat, and toxic social interactions in online games can heighten negative emotions, which are then expressed as verbal aggression (Coyne et al., 2020). Furthermore, communication patterns

within gaming environments which often involve the use of profanity or taunts can also normalize aggressive behavior in adolescents' everyday interactions.

Clinically, the DSM-5 has identified IGD as a condition requiring further research, while the WHO's ICD-11 classifies it as a disorder characterized by a persistent inability to control gaming habits. The criteria for IGD include a strong urge to play games, difficulty managing gaming time, relying on games as a means of escaping real-life problems, and experiencing withdrawal symptoms when unable to play (Paulus et al., 2018). The effects of IGD can include sleep disturbances, a decline in academic performance, and strained social interactions (Kuss & Griffiths, 2020).

Various previous studies have shown that Internet Gaming Disorder (IGD) is significantly associated with aggressive behavior in adolescents. A study Li et al. (2023) using a meta-analysis found that the higher the level of IGD, the greater the tendency toward aggressive behavior. These findings are supported by a study Nurhalimah et al. (2023) showing that both addiction and the intensity of online gaming are associated with increased verbal aggression among adolescents. However, most of these studies were conducted on the general adolescent population or middle school students and focused more on aggression in general; therefore, research specifically analyzing the influence of IGD on verbal aggression among high school students in a school setting remains limited. The novelty of this study lies in its focus on analyzing the specific effects of Internet Gaming Disorder (IGD) on verbal aggression among high school students within the school environment. In fact, high school students are in a phase of social and emotional development that makes them vulnerable to the influence of the digital environment and gives them high access to online games. Therefore, this study aims to analyze the effect of Internet Gaming Disorder on verbal aggression among high school students, with the hope of providing empirical evidence to support the development of guidance and counseling services in efforts to prevent aggressive behavior in the school environment.

Method

This study employs a descriptive research design using a correlational method through a quantitative approach. The quantitative approach was chosen because the data collected consists of numerical values that are statistically analyzed to understand the impact of Internet Gaming Disorder (IGD) on students' verbal aggression (Creswell, 2014). A correlational design was used to evaluate the relationship and impact of variables without intervening with the respondents, and the descriptive aspect aimed to explain the conditions of each variable based on information obtained from the students.

Participants

The population in this study comprised all 10th-grade students at SMAN 39 East Jakarta for the 2025/2026 academic year, totaling 322 students. A sample of 178 students was determined using the Slovin formula with a margin of error of 5%. Simple random sampling was used, ensuring that all students had an equal chance of being selected as respondents. The respondent profile consisted of 96 male students (53.9%) and 82 female students (46.1%). The sampling process was designed to minimize selection bias, while the sample size was calculated using the Slovin formula (Suharsimi, 2006).

Instrument

The research instrument consisted of a closed-ended questionnaire using a Likert scale with five response options: strongly disagree, disagree, neutral, agree, and strongly agree. The

instrument for measuring Internet Gaming Disorder was developed by the researcher based on DSM-5 criteria and the model of gaming addiction proposed by Lemmens (2019), which includes aspects such as salience, tolerance, mood modification, withdrawal, relapse, conflict, and problems. This instrument consists of 28 statements; validity test results indicated that 25 statements were valid and 3 were invalid. The reliability of the IGD instrument was determined to be $\alpha = 0.903$, indicating a very high level of reliability. The instrument for verbal aggression was developed based on the theory of (Buss & Perry, 1992) and covers behaviors such as insulting, mocking, yelling, threatening, and using harsh language. The instrument consists of 24 statements, with 21 statements deemed valid and 3 invalid the reliability test yielded a Cronbach's alpha value of $\alpha = 0.889$, indicating that this instrument is reliable

Procedures

This study was conducted at SMAN 39 East Jakarta, located at Jl. RA. Fadillah, Kopassus Cijantung Complex, East Jakarta, DKI Jakarta, in May 2026. Prior to data collection, the researcher obtained research permission from Indraprasta PGRI University and implementation permission from the principal of SMAN 39 East Jakarta. The research process included the initial planning stage, proposal drafting, instrument preparation, instrument testing, data collection, and writing the research report. All these steps were carefully organized to ensure the research proceeded smoothly and did not disrupt the teaching and learning process at the school. After obtaining approval from the school, the researcher explained the purpose, benefits, and importance of maintaining data confidentiality, as well as the respondents' right to refuse or withdraw their participation at any time without any consequences. All respondents provided informed consent to participate before completing the questionnaire. The questionnaire was distributed in person via Google Forms to facilitate the data collection process. Respondents were expected to answer all questions honestly based on their experiences; the collected data was then checked for completeness before statistical analysis was conducted.

Data Analysis

Data analysis was conducted using SPSS version 20. In the initial stage, a descriptive analysis was performed to determine the mean, standard deviation, frequency, and percentage of the respondents' characteristics. Subsequently, validity and reliability tests of the measurement instrument were conducted, followed by analysis prerequisite tests, namely the Kolmogorov-Smirnov normality test and the linearity test. To test the hypothesis, simple linear regression was used to determine the effect of Internet Gaming Disorder on verbal aggression. The significance level applied was 0.05. The extent of the independent variable's contribution to the dependent variable was measured using the coefficient of determination (R^2). Through this approach, the analysis is expected to provide a clear and accurate picture of the relationship between Internet Gaming Disorder and verbal aggression among 10th-grade students at SMAN 39 in East Jakarta

Results and Discussions

Result

After the research was conducted and data from all respondents were collected, the next stage involved presenting the systematically processed data analysis results. This section presents the findings regarding the effect of *Internet Gaming Disorder* (IGD) on verbal

aggression among Grade X students at SMAN 39 Jakarta Timur. The findings are organized into several parts, including descriptive statistics, variable categorization, assumption testing, and hypothesis testing using simple linear regression analysis. Furthermore, this section presents the research findings on both *Internet Gaming Disorder* and verbal aggression among students, in the form of descriptive statistics as well as inferential analysis results. The results are then discussed in order to provide a deeper explanation of their meaning and their relationship to relevant theories and previous studies.

A descriptive examination was performed to gain insight into the respondents' scores regarding IGD and verbal aggression. The findings are shown in Table 1.

Table 1. Descriptive Statistics Internet Gaming Disorder and Verbal Aggressiveness

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Internet Gaming Disorder	178	65	40	105	73.4382	11.81539
Agresivitas Verbal	178	63	49	112	78.0562	12.62932
Valid N (listwise)	178					

Based on the calculations in Table 1, the data for the Internet Gaming Disorder (IGD) variable obtained from a sample of 178 respondents showed a minimum score of 40, a maximum score of 105, and an average score of 73.44. This average score indicates that, in general, the level of Internet Gaming Disorder (IGD) among the respondents falls into the moderate category, suggesting that the respondents tend to engage in fairly intense online gaming behavior but have not yet reached a very high level. The standard deviation of 11.82 indicates that the data distribution is relatively homogeneous. This suggests that the levels of Internet Gaming Disorder (IGD) experienced by the respondents do not vary significantly, so that most scores cluster around the mean.

Meanwhile, for the Verbal Aggression variable, the research results showed a minimum score of 49, a maximum score of 112, and an average score of 78.06. This average score indicates that, in general, the respondents' level of verbal aggression also falls into the moderate category, suggesting that respondents occasionally exhibit verbally aggressive behavior, such as using hurtful words, arguing in a raised voice, or expressing anger through speech in certain situations. The standard deviation of 12.63 indicates that the data distribution is relatively homogeneous, meaning that the respondents' levels of verbal aggression tend not to vary greatly, and most values are concentrated around the mean.

Categorization of Internet Gaming Disorder and Verbal Aggressiveness

In order to offer a better understanding of the participants' situation, the scores were divided into low, moderate, and high categories. The results of this classification are visually represented in Figure 1.

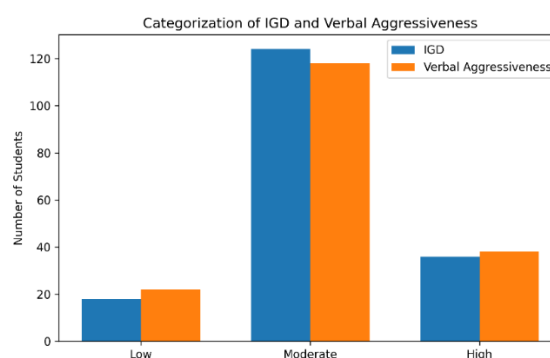


Figure 1. Categorization of IGD and Verbal Aggressiveness

Most of the participants fell into the average range for both factors, showing that many students dealt with a medium degree of Internet Gaming Disorder and verbal aggression.

Table 2. Classification of Factors

Category	IGD (n, %)	Verbal Aggressiveness (n, %)
Low	18 (10.1%)	22 (12.4%)
Moderate	124 (69.7%)	118 (66.3%)
High	36 (20.2%)	38 (21.3%)

The results indicate that 124 students were identified with moderate Internet Gaming Disorder, and 118 students were identified with moderate levels of verbal hostility. A limited number of students were classified as either low or high in these areas.

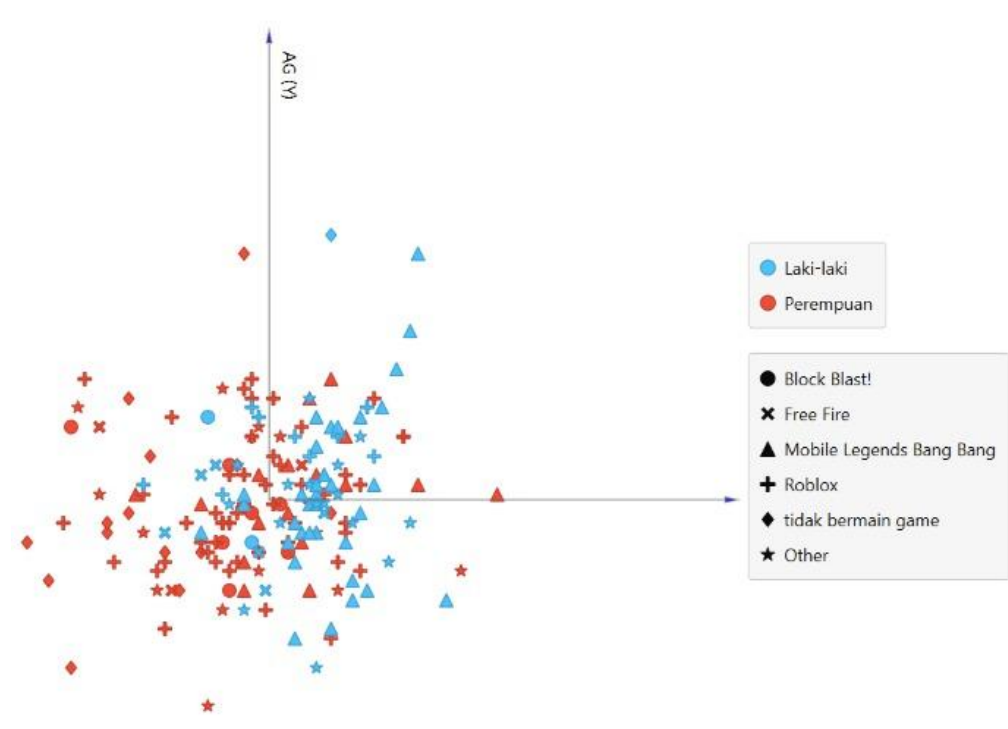


Figure 2. Distribution of Internet Gaming Disorder Scores and Verbal Aggression

Shows that the distributions of Internet Gaming Disorder scores and verbal aggression do not form a clear linear pattern. However, the scatter plot provides only a preliminary indication of the relationship between the two variables. Therefore, a simple linear regression analysis was conducted to test the significance and magnitude of the effect of Internet Gaming Disorder on verbal aggression.

Assumption Testing

Prior to testing the hypotheses, evaluation of assumptions was performed to confirm that the data satisfied the conditions necessary for parametric statistical procedures.

Normality Test

The Kolmogorov-Smirnov test was employed to assess whether the data followed a normal distribution. The findings are presented in Table 3.

Table 3. Kolmogorov-Smirnov Test

Variable	N	Mean	Std. Deviation	Sig.
Internet Gaming Disorder	178	73.43	11.81	0.275
Verbal Aggressiveness	178	78.05	12.63	0.412

Source: Personal document (SPSS Version 20)

Based on the results of the normality test in Table 3, the significance value (Sig.) for the Internet Gaming Disorder (IGD) variable is 0.275, while that for the Verbal Aggression variable is 0.412. Both significance values are greater than 0.05 ($0.275 > 0.05$ and $0.412 > 0.05$). Thus, it can be concluded that the data for both variables are normally distributed, thereby fulfilling one of the assumptions of parametric statistical analysis and making them suitable for further hypothesis testing.

Regression Analysis

Once the necessary conditions were satisfied, a straightforward linear regression analysis was conducted to examine how Internet Gaming Disorder influences verbal aggression.

Hypothesis Testing (ANOVA)

Table 4. ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.855,825	1	2.855,825	15,502	< 0,001
Residual	27.375,613	176	155,543		
Total	28.231,438	177			

The ANOVA analysis resulted in a significance score of 0.000 ($p < 0.05$), indicating that the regression model was statistically significant. Thus, Internet Gaming Disorder significantly affected verbal aggressiveness, and the proposed hypothesis was accepted.

Simple Linear Regression Coefficient

Table 5. Regression Coefficient

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.855,825	1	2.855,825	15,502	< 0,001
Residual	27.375,613	176	155,543		
Total	28.231,438	177			

The regression equation is:

$$Y = 54.389 + 0.286X$$

This result indicates that every one-unit increase in Internet Gaming Disorder is associated with an increase of 0.286 in verbal aggressiveness. The positive coefficient shows a direct relationship between the variables. The t-test result ($t = 2.346$, $p < 0.05$) confirms that this effect is statistically significant.

Coefficient of Determination (R²)

Table 6. Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.274 ^a	0.131	.125	12.47170

The determination coefficient ($R^2 = 0.131$) reveals that Internet Gaming Disorder accounts for 13.1% of verbal aggression, whereas 86.9% is affected by other factors that were not explored in this research.

In summary, the results show that Internet Gaming Disorder positively and significantly influences verbal aggression in tenth-grade students at SMAN 39 East Jakarta, even though the strength of this influence is quite mild.

Discussion

This study found that Internet Gaming Disorder (IGD) was positively and significantly associated with verbal aggression among tenth-grade students at SMAN 39 East Jakarta. The regression coefficient of 0.286 indicates that an increase in IGD was accompanied by an increase in verbal aggression, with a significance level of $p < 0.05$. The coefficient of determination ($R^2 = 0.131$) further showed that IGD accounted for 13.1% of the variance in verbal aggression, while the remaining variance was associated with other factors outside the research model. These findings indicate that problematic gaming behavior is one factor associated with adolescents' tendency to express aggression verbally, although it is not the only factor contributing to such behavior.

The findings suggest that unhealthy and uncontrolled online gaming habits may be related to adolescents' tendency to express negative emotions through insulting, mocking, yelling, threatening, or using offensive language. Online games, particularly those involving competition and intensive interaction between players, may expose adolescents to situations involving frustration, defeat, provocation, and aggressive communication. Repeated involvement in such interactions may increase the likelihood that aggressive communication patterns are carried into everyday social interactions. This finding is consistent with previous research showing that excessive online gaming and problematic gaming behavior are associated with increased aggression among adolescents. [Fajar et al. \(2024\)](#) also reported that problematic online gaming among adolescents may have behavioral and social consequences, particularly when gaming activities become difficult to control. The present findings also extend previous research on Internet Gaming Disorder in the Indonesian context. [Pratiwi et al. \(2025\)](#) found that Internet Gaming Disorder significantly influenced phubbing behavior, indicating that problematic gaming may affect not only gaming habits but also adolescents' interpersonal communication and social interactions. This suggests that the behavioral consequences of IGD may appear in different forms, including reduced attention to direct social interaction, problematic communication patterns, and verbal aggression. In the present study, verbal aggression can therefore be understood as one possible behavioral manifestation associated with difficulties in regulating gaming behavior and managing emotional responses during interpersonal interactions.

The relevance of IGD as a behavioral problem among Indonesian adolescents is further supported by studies examining its measurement. [Ifdil et al. \(2024\)](#) developed the Indonesian Version of the Internet Gaming Disorder Scale (ID-IGDS), providing an instrument specifically designed to assess IGD within the Indonesian context. Similarly, [Usman et al. \(2026\)](#) examined the psychometric characteristics of an Internet Gaming Disorder scale using the Rasch measurement model. The availability of psychometrically evaluated instruments strengthens the possibility of identifying problematic gaming behavior among adolescents more systematically. Taken together, these studies and the present findings indicate that IGD should not be viewed

merely as excessive engagement in gaming but as a behavioral issue that may be associated with broader emotional, interpersonal, and social consequences.

However, the relatively modest contribution of IGD to verbal aggression should also be considered. The finding that IGD explained 13.1% of the variance indicates that verbal aggression is a complex behavior influenced by multiple factors. Adolescents' verbal aggression may also be associated with emotional regulation, self-control, family relationships, peer interactions, frustration, personality characteristics, school climate, and exposure to aggressive content through social media or other digital environments. Therefore, IGD should be understood as one contributing factor within a broader network of psychological and environmental influences rather than as a single explanation for verbal aggression. This perspective is particularly important when developing interventions because reducing gaming behavior alone may not necessarily eliminate aggressive communication if other contributing factors remain unaddressed.

The findings have important implications for guidance and counseling services in schools. Guidance and counseling teachers should consider problematic gaming behavior as one potential factor when assessing students who frequently display verbal aggression, interpersonal conflict, emotional outbursts, or inappropriate communication. Preventive programs may include psychoeducation regarding healthy gaming habits, digital self-control, emotional regulation, anger management, and positive communication skills. Schools may also consider incorporating early identification of problematic gaming behavior into guidance and counseling programs so that students at risk of developing more serious gaming problems can receive appropriate support. Collaboration among counselors, teachers, and parents is also important because adolescents' gaming behavior occurs across both school and home environments. Parents can contribute by monitoring gaming duration and patterns, establishing appropriate boundaries, and maintaining supportive communication with adolescents.

This study has several limitations that should be considered when interpreting the findings. First, the study was conducted in only one senior high school in East Jakarta, which limits the generalizability of the findings to adolescents from different schools, geographical areas, and sociocultural backgrounds. Second, the study relied on self-report questionnaires, meaning that responses may have been influenced by participants' honesty, recall, and social desirability. Third, the correlational and cross-sectional nature of the study does not allow a definitive causal relationship between Internet Gaming Disorder and verbal aggression to be established. In addition, IGD accounted for only 13.1% of the variance in verbal aggression, indicating that other psychological, familial, peer-related, and environmental factors were not examined in this study. Future research should therefore involve larger and more diverse samples, employ longitudinal or experimental designs where appropriate, and include additional variables such as emotional regulation, self-control, family functioning, peer influence, gaming-related frustration, and social media exposure to provide a more comprehensive understanding of verbal aggression among adolescents.

Conclusions

This study concludes that Internet Gaming Disorder (IGD) has a positive and significant effect on verbal aggression among tenth-grade students at SMAN 39 East Jakarta. Higher levels of IGD are associated with increased tendencies toward verbal aggression, although the contribution of IGD to verbal aggression is relatively limited, accounting for 13.1% of the variance. This finding indicates that verbal aggression among adolescents is influenced not only by problematic gaming behavior but also by other psychological, social, familial, and environmental factors. The findings highlight the importance of preventive and intervention efforts in schools to promote healthy gaming habits, emotional regulation, and appropriate

communication among adolescents. Guidance and counseling teachers can play an important role in identifying students at risk of excessive gaming and developing interventions aimed at reducing verbally aggressive behavior. Parental involvement is also important in monitoring gaming activities and maintaining supportive communication with adolescents. Future research is recommended to involve broader and more diverse samples and to examine additional factors that may contribute to verbal aggression among adolescents.

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