# The Effect of Exposure to Violent Video Games on Students' **Aggressive Tendencies**

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E-ISSN: 2656-1050 ABSTRACT: The rapid development of digital technology has made online games a part of students' daily lives, including games containing violent elements. This phenomenon raises concerns because exposure to violent games is suspected of increased aggressive behavior to adolescents. Therefore, this study aims to determine the effect of violent games on the aggressive behavior of junior high school students. This study used a quantitative approach with a correlational design. The study sample consisted of 282 junior high school students spread across three provinces, namely West Sumatra, Jakarta, and Southeast Sulawesi, consisting of 121 male students and 161 female students. This study used two scales: the violent game scale and the aggressiveness scale. Data analysis was conducted through simple linear regression analysis. The results showed that playing violent games significantly influenced aggressive behavior. The coefficient of determination (R Square = 0.253) indicated that 25.3% of students' aggressive behavior was explained by the intensity of playing violent games, while the rest was influenced by other factors. The implications of this research are the need for active participation by schools, parents, and the community in monitoring and providing alternative positive activities that can reduce students' exposure to violent games.

#### INTRODUCTION

The global number of video game users is expected to continue to rise as a result of the advancements in technology and the increased availability of electronic devices and the internet. In the United States, findings indicate that 65% of adults engage in video gaming on a regular basis (Pontes et al., 2020). In the Netherlands, 4.3% of adolescents aged 11-16 years are reported to experience problematic gaming (Van der Neut et al., 2023). A survey conducted across Saudi Arabia revealed that 82.2% of students engage in gaming activities (Alfaleh et al., 2024). In Indonesia, findings from studies carried out in the cities of Bogor and Jakarta indicate that 10.3% of high school students are classified as having game addiction (Sitorus et al., 2020). The Southeast Asian Meta-Analysis survey indicates that the prevalence of gaming stands at 38.5%, marking the highest rates among Southeast Asian nations. Notably, Thailand reports a figure of 44.7%, while Malaysia shows 19.2% of students engaging in gaming activities (Chia et al., 2020)

The impact of games on student behavior has been a subject of considerable research. Studies have indicated that games can influence behavior, including violent behavior in adolescents (Elisya et al., 2023). The impact of violent video games on aggressive behavior, negative thoughts, and emotional aggression has been a subject of considerable research (Anderson & Bushman, 2001). This finding suggests a potential link between exposure to violent video games and an increased likelihood of aggressive behavior. Research findings indicate that exposure to violent video games has a significant impact on bullying behavior, including cyberbullying (Borrego-Ruiz & Borrego, 2025). This phenomenon is particularly deleterious to students.

Therefore, research on violent video games on aggressive behavior needs to be done to find out whether there is an influence between exposure to violent video games on students' aggressive tendencies. This research has been conducted by several researchers in Indonesia, research conducted in North Sumatra province which found that the impact of violent video games leads to physical and verbal violence (Hasibuan et al., 2022). And in the city of Palangka Raya in junior high school students, it shows that online game addiction can cause aggressive behavior (Wiyono & Ellisiya, 2023). In both studies there has been no research that directly shows that exposure to violent video games on aggressive tendencies.

#### **Violent Video Games**

Playing games especially violent ones is often studied in relation to aggressive behavior because it involves exposure to competitive stimuli, violent scenes, and dominance-based rewards. Classic meta-analyses found a small to moderate positive association between exposure to violent games and aggression, although the magnitude of the effect varied across studies and moderators such as research design and age (Sherry, 2001). A study (Syahputra, Solihatun, et al., 2024) found a strong positive association between social media addiction and relational aggression in college students, with a correlation coefficient of approximately  $r \approx .68$ , indicating that higher social media engagement led to higher likelihood of relational aggression among peers. These results reinforce the assumption that the dominance of digital interactions has the potential to reinforce aggressive behavior without physical violence. Conversely, a recent pre-registered study of British adolescents reported no association between violent game engagement and caregiver-rated aggression, highlighting the importance of methodological quality and open replication (Przybylski & Weinstein, 2019). Historically, longitudinal/correlational evidence has shown mixed patterns some supporting increased aggression, others showing no effect so context (family environment, aggression norms) needs to be considered when interpreting variability in findings (Shao & Wang, 2019). Syahputra et al. (2019) used Rasch analysis to evaluate internet addiction in college students by gender. Although no significant differences were found between males and females (p > .05), there were differences in usage patterns: males were more likely to play games and access entertainment content, while females were more likely to use social media for interpersonal communication.

# **Aggressive Tendencies**

Theoretically, the General Aggression Model (GAM) explains how personal (traits, attitudes) and situational (violent content, competition) inputs influence internal states (affect, cognition, arousal) that trigger aggressive judgments and responses both impulsive and controlled (Sun et al., 2019). Social Learning Theory emphasizes the imitation of rewarded violence models and learned aggressive scripts relevant when players are "rewarded" after committing violent acts in games (Coyner, 2019) Another study by (Syahputra et al., 2022) analyzed the influence of narcissism and social media addiction based on gender, social demographics, access intensity, and number of social media accounts, using a multivariate approach (MANOVA). The findings showed higher levels of narcissism and addiction in individuals with intense access and more accounts, and showed significant differences based on gender with men tending to be more narcissistic and competitively

involved on social media. Additionally, desensitization to violence (a decrease in emotional/empathic responses after repeated exposure) has been proposed as a mechanism that may lower inhibitions against real-world aggression (Appelbaum et al., 2015).

Aggressive behavior is defined as behavior intended to harm others who do not want to be harmed; violence is a subset of aggression with the intention of causing serious injury. Aggressive behavior, which includes acts intended to harm others, can be understood through the General Aggression Model (GAM), where exposure to violent content such as in video games can shape aggressive scripts, decrease empathy, and increase affective and cognitive states that predispose to aggressive behavior. A longitudinal meta-analysis of 24 studies with approximately 17,000 adolescents (ages 9-19 years) found a significant effect between exposure to violent video games and increased future physical aggression, with a  $\beta$  effect size of approximately 0.08 after controlling for baseline variables (Anderson et al., 2008). A recent data-based review of the Problem Behavior Theory framework confirmed that exposure to aggressive video games is significantly associated with increased aggression, aggressive affect, desensitization to violence, and decreased empathy, particularly in children and adolescents (Wei et al., 2022). An empirical study from the Annals of Punjab Medical College (2018) using a sample of school-aged children found that the frequency of playing violent games was significantly associated with the frequency of aggressive behavior (fighting and arguing), supporting the GAM from an empirical perspective (Saleem et al., 2018). Variations in relational aggression both globally and in Indonesia. He revealed that gender differences contribute significantly to patterns of aggression females are more likely to use relational aggression in social contexts (Syahputra, Neviyarni, et al., 2024).

The discrepancies in research findings regarding the effect of video games on aggression are often influenced by contextual factors. For example, a longitudinal study in Germany found that the relationship between violent video games and aggression was influenced by the family environment: adolescents with warm and supportive parents showed a smaller effect than adolescents with low family control (Korte et al., 2019). Emotional factors also play a role, with research in college students showing that trait empathy mitigates the negative effects of violent video game exposure on aggressive behavior, suggesting that empathy may be an important moderator (Pedra Nobre et al., 2020). More specifically, college students who access the internet for more than 8 hours per day and have more than five social media accounts are more likely to experience nomophobia compared to students with shorter access times or fewer social media accounts (Syahputra & Erwinda, 2020). Furthermore, other research emphasizes that excessive gaming time is more influential on aggressive behavior than the game content itself, suggesting that the duration and intensity of exposure should be taken into account in analyses of long-term effects (S. D. Kim & Yeun, 2022). Therefore, a more comprehensive understanding needs to consider the interaction between family factors, empathy, and duration of play in explaining aggressive behavior in adolescents.

In the school context, guidance counsellors play a strategic role in reducing aggressive behavior that arises from gaming. One effective intervention is group counseling based on Cognitive Behavioral Therapy (CBT), which has been shown to reduce aggressive behavior through cognitive restructuring and emotional regulation training (Kurniawati et al., 2014). Complementarily, media literacy psychoeducation, which includes understanding violent content and developing empathy, has successfully reduced aggressive tendencies in studies of adolescents (Carbó-Carreté et al., 2020). Furthermore, psychoeducational interventions involving emotion regulation and empathy training can help students reassess aggressive responses and improve adaptive social skills, thereby mitigating the negative impact of exposure to violent games (S. Kim & Ishikawa, 2021). These findings emphasize the need for interventions through digital literacy education and strengthening self-regulation. For guidance counsellors, prevention and counseling strategies should include social media addiction management modules to reduce latent interpersonal aggression (Syahputra,

Neviyarni, et al., 2024). With this approach, BK not only functions as prevention but also as an active intervention that ensures that students' interactions with aggressive content or gaming are more adaptive.

# **Purpose of the Study**

Therefore, it is imperative to comprehend the correlation between violent video games and aggressive behaviours in order to mitigate potential risks associated with digital entertainment. The objective of this study was to examine the impact of violent video games on aggressive tendencies in students.

#### **METHODS**

# Design

This study employed a quantitative approach with a correlational research design (Creswell, 2014). This design was chosen to determine the relationship between two variables: the intensity of violent game play (variable X) and students' aggressive behavior (variable Y). The quantitative approach was used to objectively analyze the research results using statistical methods, resulting in measurable and accountable conclusions.

# **Participants**

The sampling technique used in this study was purposive sampling, which involves selecting a sample based on specific considerations in accordance with the research objectives. The sample selection criteria were active junior high school students with experience playing games, particularly games containing violent elements. The focus of this study was on digital games with violent content that are popular among students. Some of the games most frequently played by respondents included: Free Fire, Mobile Legends, PUBG Mobile, and Call of Duty Mobile. These games fall into the combat-based category (battle royale and multiplayer online battle arena (MOBA), which generally feature combat scenes, weapon use, opponent elimination strategies, and competitions that require players to aggressively defeat their opponents.

The sample size for this study was 282 students spread across several junior high schools in three provinces: West Sumatra, Jakarta, and Southeast Sulawesi. Of the total respondents, 121 (42.9%) were male and 161 (57.1%) were female. Sample selection was carried out taking into account the representativeness of each region, ensuring that the data obtained could provide a more comprehensive picture of the situation. The questionnaire was distributed online via Google Forms, with the assistance of the teachers' council organizations in each region, making it easier for researchers to reach a large number of respondents in diverse locations.

#### Instrument

The instrument used in this study is a questionnaire. The researchers divided the questionnaire into two measurement scales: violent gaming and aggressive behavior. The scale used is a Likert scale. A Likert scale presents questions or statements with response indicators of strongly agree, agree, disagree, and strongly disagree. Each questionnaire item ranges from highest to lowest. Respondents can answer by selecting one answer from the provided questions. This instrument utilizes the theory of gaming (Kausar, 2019) Gaming is an activity that is enjoyable and undertaken voluntarily, freely, without coercion, with the aim of gaining pleasure. There are two aspects of gaming, reviewed based on the following indicators: a) Withdrawal, b) Compulsion, c) Mood modification or escape, d) Interpersonal and health-related problems, and e) Tolerance. Next, aggressive behavior takes the theory (Hafizhah et al., 2024) Aggressive behavior is behavior that is carried out to hurt, threaten, or endanger individuals or objects that are the targets of the behavior, either physically or verbally, and directly or indirectly. There are several aspects of aggressive

behavior, based on indicators: a) Hitting, b) Insults, c) Hatred, and d) Feeling suspicious. To ensure the reliability of the research instrument, a reliability test was conducted using Cronbach's Alpha. The results showed that the violent gaming variable (X) obtained a Cronbach's Alpha score of 0.90, and the aggressive behavior variable (Y) obtained a score of 0.92. These values indicate that both instruments have excellent internal consistency and are highly reliable for use in this study.

#### **Procedure**

The researcher employed a questionnaire as the primary method of data collection in this study. A questionnaire is a structured instrument designed to gather information through a series of written questions that reflect the issues or variables being examined. In this research, the questionnaire was distributed to students in several junior high schools across three provinces, namely Jakarta, West Sumatra, and Southeast Sulawesi, to obtain comprehensive data on the influence of violent video games on aggressive behavior. To facilitate wide and efficient distribution, the questionnaire was created in the form of a Google Form and disseminated through the teachers' council organization (Majelis Guru) in each region, ensuring accessibility and participation from a broad range of respondents. The questionnaire was designed using a Likert scale, which allows respondents to indicate the extent of their agreement or frequency of a particular behavior. The scoring system for each item ranged from the highest to the lowest level, enabling the researcher to capture variations in responses more accurately. Specifically, the Likert scale model applied in this study used a continuum with four categories, providing a balanced framework to assess both the intensity of violent game playing and the aggressive tendencies of students, while reducing the possibility of neutral responses. The Likert scale model used is a continuum with four categories:

- 1. SS = Strongly Agree
- 2. S = Agree
- 3. TS = Disagree
- 4. STS = Strongly Disagree

## **Data Analysis**

This study used a regression test to measure the influence between the two variables. A regression test is a statistical analysis technique used in quantitative research to measure and determine the relationship between two or more variables. This paper explains that the purpose of a regression test is to determine the extent to which an independent variable influences a dependent variable and to make predictions about the dependent variable based on the values of the independent variables (Putra et al., 2023).

## **RESULTS AND DISCUSSION**

#### Results

Recent research suggests that exposure to violent video games is positively associated with increased aggressive tendencies in students. Several meta-analyses confirm that playing violent video games significantly increases aggressive thoughts, feelings of hostility, and aggressive behavior.

Table 1. Results of the violent video games and Aggressive categorization test

Category —	Violent video games			Aggressive		
	Interval	f	%	Interval	F	%
Very high	59-72	182	64.5	118-144	137	48,6
High	45-58	56	19.9	91-117	85	30,1
Low	31-44	44	15.6	64-90	59	20,9
Very Low	18-30	0	0.0	36-63	1	0,4
Total		282	100.0	Total	282	100.0

Based on Table 1, it can be seen that the majority of respondents were in the very high category in terms of intensity of playing violent games, namely 182 students (64.5%), followed by the high category with 56 students (19.9%), and the low category with 44 students (15.6%). Interestingly, no respondents fell into the very low category (0%). This finding indicates that the activity of playing violent games has become a very common phenomenon among students, with the dominant level of involvement being at a high to very high level. This condition indicates that exposure to violent games is no longer a rare thing, but has become part of students' daily lives, thus potentially having a significant impact on their psychological and social aspects, including tendencies towards aggressive behavior. Meanwhile, the majority of students exhibited high levels of aggressive behavior. A total of 137 students (48.6%) were in the very high category, while 85 students (30.1%) were in the high category. Fifty-nine students (20.9%) were in the low category, and only one student (0.4%) was in the very low category. These data indicate that almost all respondents had a tendency towards aggressive behavior at high to very high levels, with a very dominant proportion. This finding indicates that aggressive behavior has become a quite worrying phenomenon among students, which is likely closely related to the high intensity of exposure to violent games.

Table 2. Results of Simple Linear Regression (ANOVA) Calculations

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	21814.09	1	21814.09	94.81	.000b
Residual	64425.51	280	230.09		
Total	86239.60	281			

a. Dependent Variable: Aggressive Behavior (Y)

Based on Table 2, the results of the simple regression ANOVA calculation obtained an F value of 94.81 with a significance level of 0.000 < 0.05. This indicates that the constructed regression model is suitable for use and the independent variable, namely the intensity of playing violent games (X), has a significant influence on the dependent variable, namely student aggressive behavior (Y). In other words, there is a real and statistically accountable relationship between playing violent games and increased student aggressiveness. This finding strengthens the results of the previous descriptive analysis that high exposure to violent games among students also contributes to the high tendency for aggressive behavior.

Table 3. Results of Simple Linear Regression Calculations (coefficients)

Model	<b>Unstandardized Coefficients</b>		Standardized Coefficients	_	C:~
iviouei	В	Std. Error	Beta	_ '	Sig.
(Constant)	50.67	6.47		7.83	.000
Bermain Game (X)	.536	.055	.503	9.74	.000

a. Dependent Variable: Aggressive Behavior (Y)

Based on Table 3, the results of the simple regression coefficient calculation yield the following regression equation: Y = 50.67 + 0.536X. The constant value of 50.67 indicates that if a student does not play violent games at all (X = 0), the predicted aggressive behavior score will remain at 50.67. The regression coefficient of 0.536, with a significance value of 0.000 < 0.05, indicates that each one-unit increase in the intensity of violent game play will increase the student's aggressive behavior score by 0.536 points. The standardized Beta value of 0.503 also confirms that the variable of violent game play is quite strong in influencing aggressive behavior. Thus, these results strengthen the evidence that the higher the intensity of violent game play, the higher the tendency for aggressive behavior displayed by students. The determination value (R) is also obtained, as shown in the summary table 4.

b. Predictors: (Constant), Violent Video Games (X)

Table 4. Results of the Determination Coefficient (R)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.503	.253	.250	15.17

a. Predictors: (Constant), Violent Video Games (X)

Based on Table 4, the R value = 0.503 was obtained, indicating a positive relationship with moderate strength between the intensity of playing violent games and students' aggressive behavior. The R Square value = 0.253 means that approximately 25.3% of the variation in students' aggressive behavior can be explained by the intensity of playing violent games, while the remaining 74.7% is influenced by other factors.

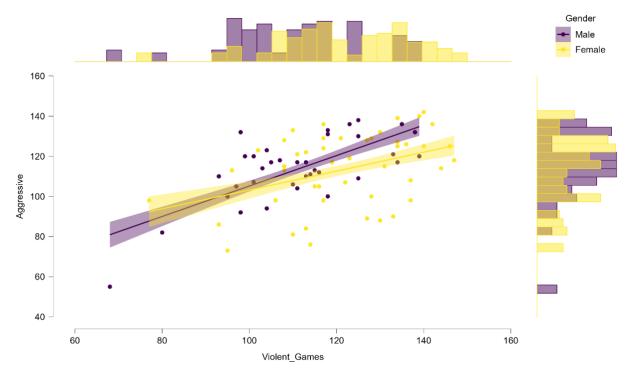


Figure 1. Overview of Data Distribution Analysis Based on Gender

This graph illustrates the relationship between the intensity of playing violent games and the level of aggressive behavior based on male and female gender. Using a scatter plot and separate regression trend lines for males (purple) and females (yellow), a positive relationship pattern is apparent in both groups, namely that the higher the violent game playing score, the higher the aggressiveness score. This is evident from the upward trend of the regression line in both gender categories. The distribution of data in the histograms at the top and right also shows that the majority of respondents, both male and female, are in the medium to high score range, although there are a few outliers at low scores especially in the male group.

This phenomenon may be due to the increasing access and interest of women in games, including violent games, due to the development of a more inclusive gaming industry, more diverse character narratives, and increased female representation in the gaming community. Furthermore, the social perception that violent games were predominantly played by men is shifting, allowing women to freely express their interests without significant negative stigma. Although more women are engaging in violent gaming activities, levels of aggression between men and women appear relatively similar, as evidenced by the distribution and position of the regression lines for both genders on the graph. This suggests that exposure to violent games does not necessarily result in higher levels of aggressive behavior in women than in men. One of the main reasons is socioemotional factors and individual self-control mechanisms. Women generally have a better ability to

express and manage emotions, thus minimizing the impact of exposure to violent games on aggressive behavior. Conversely, the normalization of aggressive behavior in men, which tends to be high, actually reduces the difference in aggression between genders when exposed to violent games at the same intensity. (Ulfaningrum et al., 2021)

## Discussion

Some previous research results related to these results and discussion such as, (Deny & Felni Tjingaisa, 2024) The results of the study showed that all respondents (100%) of students of SMA Negeri 6 North Halmahera were classified as having severe online game addiction with a score of >21. The characteristics of respondents were dominated by women (67%) and the majority were aged 15–16 years (64%). Aggressive behavior in students was mostly in the high category (71.48%), which included actions such as blaming others, swearing, kicking, and hitting. The linearity test showed a significant relationship between online game addiction and aggressive behavior, with a significance value of 0.000 (p<0.05) and a correlation coefficient of 0.908, which is categorized as a near-perfect relationship.

Various studies have shown a significant relationship between online game use and aggressive behavior in adolescents. Caturia Devina et al. (2022) found that emotional maturity plays a significant role in controlling verbal aggression, with a significant negative correlation (r = -0.544, p < 0.001), indicating that more emotionally mature adolescents tend to have lower verbal aggression. Similar results were also found by Puput Yulianingrum et al. (2024), who stated a moderate positive relationship between game playing intensity and verbal aggression that often arises from frustration in the game. Wiyono & Ellisiya (2023) supported these findings by reporting a significant relationship between online game addiction and aggression, with males showing higher levels of aggression than females. Overall findings confirm that although factors such as emotional maturity can suppress aggression, the intensity and addiction of online gaming, as well as social and psychological factors, still contribute to increased aggressive behavior in adolescents, so that an active role is needed from parents, schools, and communities in managing these negative influences.

Research shows that the intensity of online gaming has a significant positive influence on aggressive behavior in children and adolescents. The longer the duration or level of gaming addiction, the greater the likelihood of verbal and physical aggression (Ergana et al., 2022; Musthafa, 2015; Nisrina et al., 2023). Parental supervision generally plays a crucial role in suppressing aggression, but in some cases its influence is insignificant due to external factors such as the social and cultural environment of the gaming community (Ergana et al., 2022; Musthafa, 2015). Aggressive behavior often occurs in the form of harsh words, teasing, yelling, and physical acts, typically triggered by frustration, competition, and the influence of violent content in games. Social learning theory and the General Aggression Model underpin the understanding that aggression can be learned and emerges in response to exposure to games with violent elements. Therefore, the role of families, schools, and communities is crucial in providing supervision, education, and alternative positive activities to minimize the negative impact of online gaming on the behavioral development of children and adolescents.

Satria et al. (2015) the results of the study showed that of 83 male students in grades IV and V at SD Negeri 02 Cupak Tangah Pauh, Padang City, 41% were addicted to playing video games containing violent elements, while 39.8% exhibited aggressive behavior. Respondents who were addicted to violent games tended to play games with physical fighting or armed warfare backgrounds, such as GTA, Smack Down, Call of Duty, Point Blank, and Counter Strike. Analysis using the Chi-Square test produced a p-value = 0.000 (<0.05), which means there is a significant relationship between addiction to playing violent video games and aggressive behavior. The percentage of aggressive behavior was higher in the addicted group (67.6%) compared to the non-

addicted group (20.4%). Aggressive behaviours found included verbal violence such as swearing when angry (90.9%) and physical violence such as hitting during disputes (84.8%). Factors triggering aggressive behavior include the influence of media that displays violence, imitation of parental or environmental behavior, and involvement in games that trigger imitation of aggressive behavior. These findings support social learning theory, which explains that exposure to models of violent behavior in the media, including video games, can encourage children to imitate them.

The implications of this research emphasize the need for psychological counseling programs in schools, such as UKESWA within the UKS framework, to detect and address early addiction to violent video games and aggressive behavior in children. Imtiyaz (2020) the results of the study showed that students at SMP Negeri 28 Banjarmasin who were addicted to the online game Mobile Legends spent an average of 5–6 hours per day, or more than 35 hours per week, playing the game. This addiction led to aggressive behavior, dominated by verbal aggression, such as using harsh words when annoyed or losing. Factors triggering aggressive behavior include the influence of mass media (the internet), crowded environments, and the outlet for frustration. Aggressive behavior often stems from imitating vocabulary or actions seen and heard through in-game interactions, such as through voice chat features. In addition to verbal aggression, nonverbal aggression was also found, such as hitting, elbowing, and getting into fights with friends or juniors, both at school and outside. This form of aggression tends to be active, carried out without prodding from others, and directed at people who are perceived as disrupting play activities. This aggressive behavior carries over into various situations, including in the classroom, the canteen, or at home, and is often a form of revenge. These findings support social learning theory, which states that aggressive behavior can be learned through imitation from the environment, family, and the media.

Setiawati & Gunado (2019) Based on the results of the study involving 539 junior high school students in Bandar Lampung, it was found that the intensity of playing online games was mostly in the moderate category, namely 358 students (66.4%), followed by the low category of 100 students (18.6%), and the high category of 81 students (15.0%). Meanwhile, aggressive behavior of students was also dominated by the moderate category with a total of 403 students (74.8%), followed by the low category of 98 students (18.2%), and the high category of 38 students (7.1%). The Spearman correlation test showed a significant relationship between the intensity of playing online games and aggressive behavior (p = 0.000) with a correlation value of r = 0.539, which indicates a strong level of closeness of the relationship. This finding strengthens the theory that the higher the intensity of playing online games, the higher the tendency for aggressive behavior that appears in early adolescence. The types of games most associated with high levels of aggressiveness are Mobile Legends and PUBG Mobile, which contain elements of violence such as fighting, shooting, and the use of sharp weapons. Forms of aggressive behavior found included the use of harsh language, verbal and physical aggression, and even damaging objects. Students with low levels of aggression were still able to control their emotions and only occasionally expressed irritation, while students with high levels of aggression tended to easily express their emotions, struggle to control them, and resort to physical violence. Social factors also played a role, with some students preferring to spend hours playing online games rather than interacting face-to-face with peers, indicating poor social skills and potential dependence on digital media.

Zhang et al. (2021) The findings of a study conducted on 192 students 12-year-old in China indicated that students who exhibited high levels of engagement in gaming exhibited a higher prevalence of aggressive behavior compared to those who did not engage in gaming. The study also demonstrated that students who played violent video games exhibited higher levels of aggression compared to those who played non-violent games. The results of the study demonstrate that the effects of violence displayed in games are not only exhibited among older adolescents; children can also be exposed to such content. It has been demonstrated that students will exhibit aggressive behavior in the presence of triggers that are associated with aggression. This phenomenon is

associated with the activation of aggressive cognition, as evidenced by students' rapid interpretation of others' behavior. The results also confirm that early exposure to violent video games has the potential to engender long-term aggressive mindsets, and that this exposure can manifest in everyday social interactions. Concurrently, the findings of this study demonstrate a correlation between aggressive behavior and its propensity to recur.

Filipović (2023) The results of research conducted on the subject of discussion are video game players in general, especially children. A qualitative analysis method is employed, which includes literacy studies, media content analysis, comparative analysis, and literature review. The results indicated that there was an increase in aggressiveness towards exposure to violent video game players. The research also elucidates that the deleterious effects identified include the potential for players to normalize problem-solving through aggressive or violent means. Additionally, players may develop a perception of violence as normative due to their frequent exposure to virtual violence. As indicated in the research, exposure to violent video games has been demonstrated to engender an inclination toward physical confrontation, aggression, and aggressive emotions. Conversely, exposure to violent video games has been shown to diminish prosocial behavior. This research aligns with the extant literature on the relationship between violent video games and aggressive behavior.

Wyne et al. (2024) The present study was conducted in Multan, Pakistan, with a sample of 108 respondents. The findings indicate a positive correlation between exposure to violent video games and increased aggression. Furthermore, the results suggest a potential risk of suicide associated with this exposure. The results of the study indicate that gender is a significant factor in the relationship between the play of violent video games and tendencies toward aggression. Specifically, the study found that men play violent video games more often than women. In addition, empirical evidence has demonstrated that individuals who engage with violent video games tend to exhibit higher levels of aggression compared to those who engage with non-violent games. The intensity of exposure to violent video games has also been identified as a contributing factor. Research indicates a positive correlation between frequent exposure to violent video games and an increased tendency toward aggressiveness. The impact of violent video games on cognitive functions has been a subject of considerable interest in recent years. Research has indicated that exposure to violent video games can lead to a decline in brain neurophysiology functions. For instance, studies have shown that activity in the amygdala and cingulate cortex can be triggered, resulting in increased aggressiveness. Additionally, decreased function in the orbitofrontal cortex has been observed to reduce self-control and empathy. The present findings align with the results of the research conducted, which demonstrated that aggressiveness is influenced by several other factors. Delhove & Greitemeyer (2023) the study was conducted on 192 students in the United States at Lowa State University. The results showed that playing violent video games significantly increased aggression compared to playing non-violent games. The effect appears in the form of retaliatory or displaced aggression. Even research that has been done also finds that by simply observing other people playing violent video games, will also show aggression behavior. And the results of the research that has been done also reinforce in this study, namely that violent video games not only affect individuals, but also affect widespread or contagious social impacts.

The implications of this research are the need for active participation by schools, parents, and the community in monitoring and providing alternative positive activities that can reduce students' exposure to violent games. Furthermore, this study also highlights that factors beyond gaming, such as family environment, peer relationships, and individual emotional regulation skills, also play a role in the formation of aggressive behavior. Therefore, a comprehensive approach is needed to prevent the negative impact of violent games on students' psychological and social development.

## **CONCLUSION**

Based on the research results, it can be concluded that playing violent games has a significant effect on increasing aggressive behavior in students. This finding is evident from the results of descriptive analysis which shows that the majority of students are in the high to very high category in both the intensity of playing games and aggressive behavior, as well as the results of the regression test which shows a positive and significant relationship between the two variables. This means that the higher the intensity of students in playing violent games, the higher their tendency to behave aggressively. However, this study also confirms that other factors beyond the intensity of playing games still contribute significantly to the emergence of aggressive behavior, so that prevention and control efforts need to involve various aspects, including family, school, and the student's social environment.

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