

# Self-concept and Violent Video Gaming as Predictors of Bullying Among University of Lagos Students, Nigeria

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## ABSTRACT

Bullying behaviour has become a significant problem in schools owing to its increasing prevalence among students. This study investigated self-concept and violent video gaming as predictors of bullying behaviour among students at the University of Lagos, Nigeria. The study employed a correlational survey design with a sample size of 646 students. Data were collected using a questionnaire adapted from three instruments, titled the “Self-concept, Violent Video Gaming, and Bullying Questionnaire,” which possessed a reliability coefficient of 0.89. Hypotheses were tested at the 0.05 level of significance. The results indicated that most participants (64.1%) had a low self-concept, and a majority (86.7%) were involved in violent video gaming. Cyberbullying was the most prevalent pattern of bullying, while sexual bullying was the least common. Self-concept and violent video gaming were found to be significant positive predictors of bullying behaviour, with violent video gaming being the stronger predictor. Furthermore, female respondents reported engaging in bullying behaviour more than their male counterparts. It is concluded that self-concept and violent video gaming are key determinants of bullying behaviour among university students. Therefore, university management should provide accessible counselling services to enhance students' self-concept and educate them on the impact of violent video gaming on their behaviour.

**KEY WORDS:** Self-Concept, Violent Video Gaming, Bullying Behaviour, University Students, Nigeria.

## 1. INTRODUCTION<sup>1</sup>

Bullying is a common societal phenomenon, particularly in school setting where students interact in various ways. It has become one of the leading forms of violence in schools, potentially creating an unsafe learning environment and consequent poor academic performance. Bullying can be defined as unwelcome, hostile conduct involving a perceived or actual power imbalance. It occurs when an individual or group, perceived as stronger, commits repeated negative acts against a victim over time. According to Esquivel, López, and Benavides (2023), bullying consists of persistently hostile, intimidating, or exclusionary behaviours among peers in a school context. It is characterised by the regular and prolonged exposure of an individual to unfavourable acts by one or more others. These behaviours are

intentional acts, whether verbal or nonverbal, aimed at causing discomfort or distress. Bullying can be influenced by many variables, including peer group dynamics, the school environment, students' self-concept, and exposure to violent acts—especially through violent video games (Greitemeyer, 2022).

Bullying is also defined as any behaviour a student engages in, particularly within the school system, with the intention of causing physical or psychological harm to another person without valid justification (Oluwamumibori et al., 2022). Several types of bullying occur in schools, including cyberbullying, indirect bullying, and direct bullying. Direct bullying, also referred to as face-to-face bullying, involves physical actions intended to harm the victim, such as punching or kicking, or direct verbal actions such as insulting or yelling at another person. otherwise called covert

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bullying is the type perpetrated out of sight, such as social exclusion of a student or spreading rumour about another student (Australian Human Right Commission, (2025).

Schools all throughout the world are dealing with the unsettling reality of bullying behaviour that has spread like wildfire. This problem has only gotten worse as a result of the widespread use of digital gadgets, and a new threat has emerged: cyberbullying. Bullying occurs in all countries and affects a large number of children and adolescents. According to UNESCO (2023), concerning data in the world from 2019 shows that 10% of school-age youngsters aged 8 to 10 and a startling 20% of those aged 12 to 14 had experienced cyberbullying. Bullying at school has far-reaching effects that permanently alter pupils' academic potential as well as their mental and physical health. According to Esquivel et al. (2023), bullying among students can cause a variety of negative emotions, such as worry, fear, despair, rage, and shame. It was further emphasised that students who had experienced bullying are more likely to struggle to focus on their academics, which can have an impact on both their academic achievement and personal growth. Because self-perception frequently dictates behaviours and inactions, factors like self-concept may interact considerably to impact bullying behaviour among students.

The term "self-concept" describes a person's dynamic and complex view of themselves, which includes their experiences, feelings, and thoughts. According to Ajayi and Ogunyemi (2022), a person's self-concept is a complex and multidimensional component of their vision of themselves that includes a range of elements like self-efficacy, self-esteem, self-image, and self-identity. A person's self-concept encompasses not only their physical and psychological characteristics, but also their experiences and knowledge gained during their early years. Thus, self-concept is a significant variable that may determine how students react (behave) to various events they encounter in school, particularly when interacting with others. Similarly, Raja (2022) defined self-concept as how people see and evaluate themselves, including their opinions, values, and self-perceptions regarding their abilities, personalities, social positions, and affiliations with other social groups, among other components of their identity. Self-concept components include a person's physical, psychological, and social well-being, which can be influenced by their attitude, habits, beliefs, and ideas. These components can be summed up to form ideas of self-image and general self-appreciation.

One's self-concept can be high, medium, or poor, placing it on a continuum. While poor self-concept has been linked to a range of detrimental psychological, physical, emotional, and social effects that may affect

teenagers' development and the transition to adulthood, high self-concept has been linked to positive outcomes, growth, and improvement (McLeod, 2012). A strong sense of self-worth is a crucial aspect of a person's wellbeing. Denche-Zamorano et al. (2023) found significant negative correlations between age groups and self-concept measures. According to Diswantika (2019), there is a good correlation between high school students' self-concept and their interactions with peers. Students with strong self-concept control also demonstrated strong social interaction abilities in their surroundings. Al-Khansaa (2019) reported that people with a high self-concept are aware of their own unique characteristics, claims. They have a positive self-image, set realistic objectives, use criticism to improve themselves, enjoy their good times, and handle challenging circumstances well. On the other hand, according to Al-Khansaa, people who have a low self-concept are more likely to think poorly of themselves, have a blurred self-concept, choose unrealistic goals or avoid them altogether, be pessimistic about the future, remember their past more negatively, wallow in their negative moods, and react more negatively emotionally and behaviourally to criticism or other forms of personal negative feedback. These people may be more worried about how they affect other people socially, are less inclined to give themselves positive feedback, and are more prone to rumination or hostility when faced with stress or failures. Low self-concept increases relational aggression, but high self-concept reduces the tendency of engaging in violent behaviours (Van Hazebroek et al., 2017). Mungala and Nabuzoka (2020) found that low self-esteem predisposes pupils bullying experiences among peers. Further, the study found that girls were more susceptible to bullying than boys.

Exposure to violent video contents could potentially motivate students to engage in bullying behaviour in schools owing to the tendency to imitate the actors in such encounters. Thus, involvement in violent video gaming is an example of violent contents where students could learn the corresponding bullying behaviour of the actors. According to AlHazzaa et al. (2023), there is a strong correlation between violent video games and aggression (a form of bullying). The study also found that aggression was significantly correlated with the age and sex of students who played violent video games, with males and early-school adolescents being disproportionately affected. Huang, et al. (2017) and Khalil, et al. (2019) revealed that exposure of children to violent video games contributed to bullying behaviours. This could be as a result of high propensities for modelling after various actors in the video games. The majority of students in Chime et al.'s (2021) study on the causes and predictors of

gaming disorder among medical students in Enugu, Nigeria, did not have a video game addiction. Males were more likely to be addicted to video games. According to Ajiboye et al. (2024), there were statistically significant variations in the exposure to violent movies between male and female students. Male respondents engage more in violent video games and thus exhibited aggressive behaviour than female respondents.

Several authors have described different violent video games and their propensity to motivating players, especially students, into bullying behaviour. Greitemeye (2022) identified violent games which could lead to bullying behaviour among adolescents to include Call of Duty and Black Ops II. The duo are incredibly violent first-person shooters with military themes that include torture, frequent swearing, some sexual themes, drug use, bystanders murdered in crossfire, troops and civilians dying horribly, and constant shooting with realistic weapons. As he suffers injury, the screen turns crimson with blood anger as the player assumes the role of a villain and embarks on a violent spree against soldiers. In the action-adventure video game Grand Theft Auto 5, according to Pitcher (2013), players are required to interrogate hostages using torture devices. Saints Row is another M-rated game featuring mentioned by Pallavicini et al (2021). This game involves warring gangs that take pleasure in violent and filthy acts. The game encourages players to harm innocent people by cutting foes with chainsaws, which results in a lot of blood and chunky meat. Additionally, players take on the role of a demon hunter who repeatedly witnesses his girlfriend's horrific and unsettling death as she is being tortured in hell. Kühn et al. (2019) inferred that some of the effects of violent video games particularly reflect on school children's bullying behaviour.

The interplay among self-concept, violent video gaming and bullying behaviour among students cannot be overemphasised considering happenings on university campuses. Behaviour of students would be significantly influenced by their self-perception, which determines actions and reactions to others in school. Similarly, the type of activities students engage on could equally influence their behaviour toward other students in school. Thus, involvement in violent video gaming would likely influence students' behaviour considering the possibility of modelling after the actors in various scenes of the games' contents.

Anitiri (2016) found that bullying, both verbal and physical, was prevalent in Ghana's senior high schools. Because it has caused issues for the victims' immediate families as well as for their schools and society at large, the issue has become a major worry for those involved in

education. According to Oluwamumibori et al. (2022), the main effects of bullying on secondary school students' academic performance are poor school attendance and attention problems. The study further reported that the environment, particularly exposure to violent behaviours or pupils' perceptions of themselves and others, has a significant impact on bullying tendencies. According to Abu-Bakar and Ayyd (2018), there has been a rise in the availability of violent video games, which encourage students to engage in bullying behaviours. Al-Khansaa (2019) found that students who have negative self-concept are more likely to engage in aggressive, bullying, and violent gaming behaviours. Although the interplay between bullying and video gaming in industrialised nations has been the subject of numerous research, however little is known about the combination of factors such as self-concept and violent video gaming as predictors of bullying, particularly among students in universities in Nigeria. This study, therefore, investigated self-concept and violent video gaming as predictors of bullying behaviour among students at the University of Lagos, Nigeria.

The following research questions are raised to guide the conduct of this study:

1. What is the level of self-concept of students at the University of Lagos, Nigeria?
2. What is the rate of violent video gaming among students at the University of Lagos, Nigeria?
3. What are the patterns of bullying behaviours among students at the University of Lagos, Nigeria?

The following null hypotheses have been postulated for testing in this study:

1. Self-concept and violent video gaming will not significantly predict bullying behaviour among students of University at the Lagos, Nigeria.
2. There is no significant difference in the bullying behaviour of students at the University of Lagos, Nigeria based on gender.

## 2. METHODOLOGY

### 2.1 Research Design:

The study employed a survey method of correlation type. The quantitative approach was adopted because the study involved collection of data through use analysis of questionnaire instrument.

### 2.2 Participants:

The study considered the entire student population of University of the Lagos, which was 47,197 as of 2024 enrolment, according to Times Higher Education (2024). Based on the sample size determination guide of the

Research Advisor (2006), a minimum of 646 is suggested for a population of 40,197 at 99% confidence and 5.0% margin of error. The purposive sampling technique was used to select 323 males and 323 females in accordance with the students' population ratio of 50:50 by gender, making a total sample of 646. Respondents were selected purposely on campus; only those who indicated involvement in violence video games were enlisted to participate in the study.

### 2.3 Instrument:

Data were collected by adapting instruments: "The Personal Self-Concept Questionnaire"; "Olweus Bully/Victim Questionnaire (OBVQ)"; and "Problem Video Game Playing" types originally developed by Goni, Madariaga Axpe and Goni (2011), Dan Olweus (1996), and Tejeiro Salguero and Bersabé Morán (2002) with original reliability coefficient of 0.87, 0.89, and 0.80 respectively. The modified version used in this study was titled "Self-Concept, Violent Video Gaming and Bullying Behaviour Questionnaire (SVGBQ). The instrument was subjected to the split-half method and Cronbach's alpha formula which yielded a coefficient of 0.91. It has four sections: A (Demographic data), while B, C and D contain items on self-concept, violent video gaming, and bullying with respectively. The questionnaire was patterned in the alternative response of True of Me and Not True of Me for sections B and C, and were analysed with percentage while section D was patterned in the four-point Likert scale format with responses indicators of "Always True of Me (ATM); True of Me (TM); Rarely True of Me (RTM); and Never True of Me (NTM). The scoring in section D was on a continuum of 4-1, hence, the highest and lowest possible mean scores are 4 and 1, while the determination mean value is 2.50. The patterns of bullying behaviour were determined by mean score values, hence any pattern having a mean score of 2.50-400 was considered significant while 1.00-2.49 was considered insignificant. This was guided by the Likert Scale Analysis of Wanjohi and Syoku (2021) which contains mean calculation and determination for Likert scales. The Cronbach alpha reliability test was conducted on the questionnaire and the result yielded a coefficient of 0.83, which was considered adequate for the study.

### 2.4 Data Analysis:

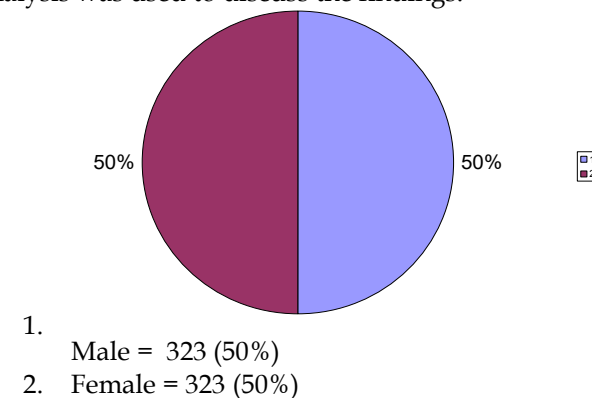
The data were analysed using percentages, multiple regression and t-test statistical methods, which are used in inferential analysis. This was considered because inferential statistics is a branch of statistics that uses sample data to draw conclusions and make generalizations about a larger population. Hypotheses were tested at the 0.05 level of significance.

### 2.5 Ethical Considerations

The respondents were contacted and the purpose of the exercise was explained to them in order to obtain their willingness to participate in the study. Only those who showed interest to participate voluntarily were involved; there was no coercion. The researchers obtained an approval of the University of Ilorin Ethical Review Committee on the appropriateness of the process.

## 3. RESULTS

This section contains reports of the analysis and interpretation of the data collected from respondents. The analysis was used to discuss the findings.

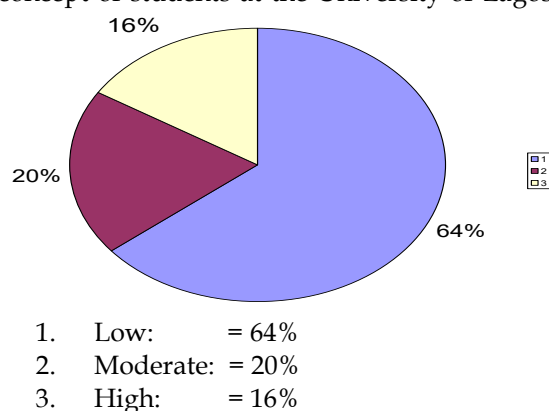


**Fig. 1:** Demographic Data of Respondents

Fig. 1: Percentage Distribution of Respondents Based on Gender

The distribution of respondents by gender shows equal participation of both male and female students at the University of Lagos.

1. **Research Question 1:** What is the level of self-concept of students at the University of Lagos, Nigeria?

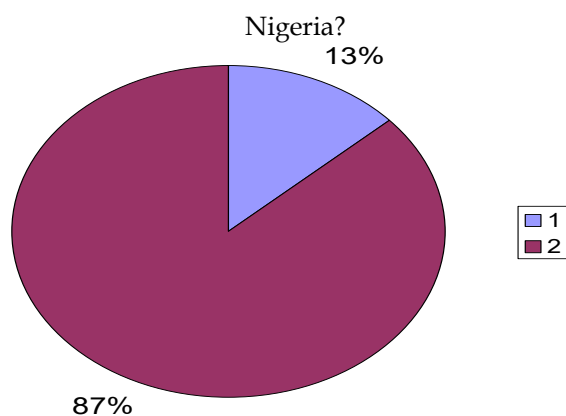


**Fig. 2:** Percentage distribution on levels of self-concept

Fig 2 indicates that 64% of the respondents have low self-concept, 20% have moderate self-concept, while 16% have high self-concept. Thus, the majority of the respondents have low self-concept.

Research Question 2: What is the rate of violent video gaming among students at the University of Lagos,



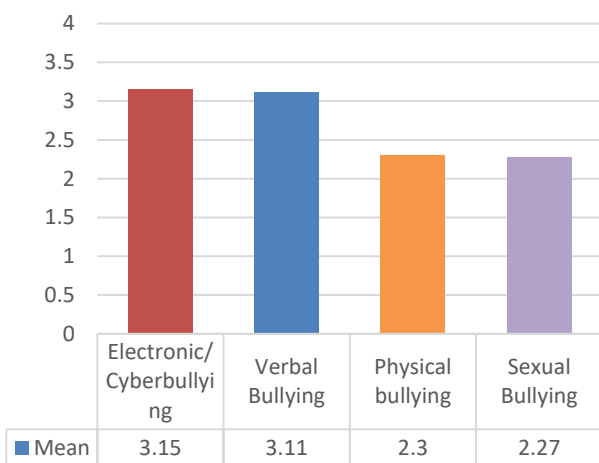


1. High = 87%
2. Low = 13%

Fig. 3: Percentage Distribution of Respondents' Rate of Violent Video Gaming.

Fig. 3 indicates a high (87%) rate of violent video gaming against a low rate (13%) among students of University of the Lagos, Nigeria. The high involvement in violent video gaming might be precipitated by low self-concept among respondents which might.

Research Question 3: What are the patterns of bullying among students at the University of Lagos, Nigeria?



Electronic/Cyberbullying:  $\bar{X} = 3.15$

2 = Verbal Bullying:  $\bar{X} = 3.11$

3 = Physical bullying:  $\bar{X} = 2.30$

4 = Sexual Bullying:  $\bar{X} = 2.27$

**Figure 4:** Analysis of the Patterns of Bullying among the Respondents

Figure 4 presents the mean of the respondents' patterns of bullying. It indicates that electronic/cyberbullying ( $\bar{X} = 3.15$ ) scored the highest followed by verbal bullying ( $\bar{x} = 3.11$ ). Both physical bullying ( $\bar{X} = 2.30$ ) and sexual bullying ( $\bar{X} = 2.27$ ) were not significant patterns of bullying among the respondents because the result shows mean scores below 2.50, which is the benchmark/ average score value being used in the instrument.

The hypotheses formulated were tested with multiple regression and the t-test statistical analyses because the study is correlational in nature, while the t-test was used to compare the two intervening variables.

**Hypothesis One:** Self-concept and violent video gaming will not significantly predict bullying behaviour among students of University of Lagos, Nigeria.

**Table 1a:**

Analysis of Variance (ANOVA)					
Model	Sum of Squares	df	Mean Square	F	p
Regression	522.107	2	261.053	5.12	.004*
Residual	32784.641	643	50.987		
Total	33306.748	645			

\*Sig.,  $p < 0.05$

a. Dependent Variable: bullying behaviour

b. Predictors: (Constant), self-concept and violent video game

In table 1a, the result of the ANOVA table indicates [ $F_{(2,643)} = 5.12, p < 0.05$ ]. The p-value was less than the significance level of 0.05 ( $p < 0.05$ ), hence the first null hypothesis was rejected. Thus, self-concept and violent video gaming significantly predicted bullying behaviour among students at the University of Lagos, Nigeria.

**Table 1b:**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.715	.624	.719	7.141

a. Predictors: (Constant), violent video game, self-concept

Table 1b (Model summary) shows the predictor coefficient R Square .624, which statistically translates to 62.4%, indicating high positive association between independent variables (self-concept and violent video gaming) and dependent variable (bullying behaviour). This suggests that approximately 62.4% of the variance in bullying behaviour can be explained by the combination of self-concept and violent video gaming while other factors not accounted for in this study are responsible for the 37.6%.

**Table 1c:**

**Regression Analysis on Self-Concept, Violent Video Game and Bullying**

Model	Unstandardized Coefficients	Standardized Coefficients	T	Sig.
	B	Std. Error	Beta ( $\beta$ )	
(Constant)	47.816	4.581	10.43	.000
self-concept	.058	.059	.052	.008
violence games	.188	.060	.167	.002

a. Dependent Variable: Bullying

b. Predictors: (Constant), self-concept and violent video game,

Table 1c indicates contribution of independent variables (self-concept and violent video gaming) to bullying behaviour. Self-concept has a Beta weight ( $\beta$ ) of .052,  $t = -2.01$ ,  $p = .008$  while Violent video gaming has a Beta weight ( $\beta$ ) of .167,  $t = -3.11$ ,  $p = .002$ . Based on the result, violent video gaming ( $\beta = .167$ ) has a higher positive contribution to bullying behaviour among respondents than self-concept ( $\beta = .052$ ). This implies that involvement in violent video gaming will likelihood increase bullying behaviour among students than self-concept.

**Hypothesis Two:** There is no significant difference in the bullying of students at the University of Lagos, Nigeria based on gender.

**Table 2:**

Mean, Standard Deviation and t-value of Bullying based

on gender					
Gender	N	x	SD	df	p
Male	323	27.43	8.04	390	0.00
Female	323	34.79	4.12		

Sig.,  $p < 0.05$

The table shows  $p = 0.00$  is less than the 0.05 level of significance: the null hypothesis was therefore rejected. Hence, there is a significant difference in the bullying of students at University of Lagos, Nigeria based on gender. However, females exhibited more bullying behaviours than male counterparts with  $x = 34.79$  against  $x = 27.43$  respectively.

#### 4. DISCUSSION

The results revealed that most of the respondents have low self-concept, while few have moderate and high self-concept respectively. This result sheds light on the complex relationship between participants' bullying behaviour and their sense of self. In a Lampung study, Diswantika (2019) found a positive correlation between social interaction and a high self-concept. They concluded that students who can effectively manage their self-concept have positive social interactions that are free from bullying and aggression, whereas those who have a low self-concept are likely to engage in bullying-like behaviour. Denche-Zamorano et al (2023) reported that the overall self-concept of students decreases with age, which could be indicative of the low self-concept of university students used in this study. Thus, since university students have advanced in age above those in lower levels of education, it is not surprising that the respondents (university students) exhibited low self-concept.

A minority of the respondents and few number reported high and low rates of violent video gaming respectively. The high rate of involvement in video gaming by students at the University of Lagos could be a

result of the urban nature of the school's location. Lagos is a cosmopolitan urban city where there are basic social and infrastructural facilities that make accessibility to video gaming easier for students, hence high involvement in the practice. On the other hand, the low self-concept, which was found to be high among the respondents could also be responsible for their engagement in violent video gaming as a mechanism for boosting the low perception about themselves. By playing violent video games, students could take on and internalise the behaviour of the key characters in the scenes to increase their self-perception (an ego defence mechanism which could be referred to as *identification*). The finding in this study does not agree with Chime et al (2021) which reported that the majority of medical students in Enugu, Nigeria were not significantly involved in video gaming. The reason for this difference could be because while Chime et al used medical students who might have understood the negative effects of gaming disorder and might not have much time to engage in video gaming due to tight schedule of their study unlike the respondents used in the present study who were not students' medical students.

On the patterns of bullying behaviour among students at University of Lagos, the result showed that both electronic/cyberbullying ( $x = 3.15$ ) and verbal bullying ( $x = 3.11$ ) respectively were the dominant while physical bullying ( $x = 2.30$ ) and sexual bullying ( $x = 2.27$ ) were not significant behaviours among the respondents. One may not be surprised that electronic/cyber bullying took the lead, especially in the face of increased advancement in information technology where students engage more on social media and the internet use. Thus, it would become easier to engage in electronic/cyber bullying than other forms of bullying behaviour. Similarly, verbal bullying could become prominent on the premise that students talk to each other often and could engage in verbal bullying under the guise of verbal discussion. On the other hand, both physical and sexual bullying may be difficult to perpetrate due to stringent rules against physical and sexual abuse on campus. The result of the present study is not in tandem with Anitiri (2016) which reported physical and sexual bullying as the most prominent among senior high school students in Ghana.

The result of hypothesis one showed that self-concept and violent video gaming significantly predicted bullying behaviour among students of University of Lagos, Nigeria [ $F_{(2,643)} = 5.12$ ,  $p < 0.05$ ]. This implies that students' low self-concept and high involvement in violent video gaming are significantly associate with bullying behaviour. The result further revealed that approximately 62.4% of the variance of bullying behaviour can be explained by the combination of self-concept and violent video gaming indicating that other variables (not tested in this study) account for 37.6%.

However, violent video gaming contributed more to bullying behaviour among respondents than self-concept. By implication, both self-concept and violent video gaming are strong variables contributing to different forms of bullying behaviour. This finding supports Abu-Bakar and Ayyd (2018) that access to viewing or playing video games made students exhibit bullying behaviours. Similarly, Huang et al (2017) reported that exposure of children to violent video games contributed to bullying behaviour.

The finding also revealed that female respondents ( $x=34.79$ ) exhibited more bullying behaviour than male ( $x=27.43$ ). This may be against the assumption that males would likely be involved in bullying behaviour. The reason for females' higher bullying behaviour could be premised on the fact that they seemingly express their emotions faster and more than male counterparts who may likely endure unpleasant situations longer than females. Conversely, Ajiboye et al (2024) reported that males exhibited more bullying behaviour than females. The reason for the difference between previous and present studies could be premised on the difference in locale of the two studies; while the previous study was conducted in Kwara State, the present study was done in Lagos, a more urban and commercial hub of the country, Nigeria.

## 5. CONCLUSION

Based on the outcome of this study, it can be concluded that the variance in bullying behaviour among university students is influenced by the combination of low self-concept and high violent video gaming, with violent video gaming showing a stronger association with bullying behaviour. Students were found to exhibit a low level of self-concept but high violent video gaming, and both electronic/cyberbullying and verbal bullying behaviour. Female students were more likely to exhibit bullying behaviour than male.

- Universities should provide (especially) accessible counselling services to help students improve their self-concept.
- Counselling units in the universities should organize workshops focused on building self-concept and confidence among students.
- University administration should collaborate with relevant agencies, such as professional counselling associations, to educate students about responsible gaming practices, the potential impact of violent video games on behaviour and promote alternative leisure activities that encourage positive interactions rather than violent video gaming;
- Counsellors should develop gender-sensitive interventions that address the bullying behaviours of female students in particular, and

- There should be Universities should foster efforts between universities, parents, and the counselling association to address bullying behaviour in universities.

## Contribution to Knowledge

This study expands understanding of bullying behaviour among university students by showing that a low sense of self-concept combined with frequent violent video gaming strongly predicts the likelihood of bullying. The influence of violent video gaming was found to be more pronounced than that of self-concept, suggesting that behavioural exposure may outweigh psychological disposition in shaping aggression. Furthermore, the study highlights that patterns of bullying vary across gender, providing fresh insight into how male and female students may be differently involved. These findings offer practical value for developing intervention programmes, as they point to the need for counselling and policy measures that address both internal psychological factors and external behavioural influences, with strategies tailored to gender-specific needs.

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