

## Interdependence of Aggression on The Exposure to Violent Video Games among Adolescents

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Adolescents are more vulnerable, especially when it comes to violent video games because they are undergoing lot of changes and their persona is shaping with them. Video games are compelling and the more time the adolescents spend on playing violent video games, there is a higher chance that they are going to act violently when provoked. Playing violent video games can increase aggressive behaviour in adolescents. The aim of the study is to know the effect of playing violent video games on aggression among adolescents. The tool used for the present study was "Video Game Questionnaire" designed by Anderson and Dill, Buss Perry Questionnaire which was developed by Arnold H. Buss and Mark Perry, and questions from Online Survey on Video Game Violence and Children. The data collection was done through simple random sampling method and tool was administered to 100 adolescents of age group 13-15years from C.B.Bhandari Jain High School, Bangalore. The tests used to analyze the data were student t-test and chi-square test. The data obtained from the study shows that when compared to female respondents, greater portion of male respondents played video games which has high level of violent content and also which has high level of gory graphics. The results show that majority of the respondents are categorized under moderate level of aggression level. The result obtained signifies that in spite of the level of violent content of the video games, the gruesome content of the violent video games has an influence on the aggression of the adolescents.

**Keywords:** Adolescents, Aggression, Video games, Violent Content

Today's adolescents and youth are immersed in social media which affects their changes. One of the major reasons for digital dependence is video games. Video games are extremely addictive. With rise in video game addiction, there is an increase in adolescent aggression. These games are exhilarating, thrilling, fascinating and adventurous. Each game takes the players through a dynamic journey and tend to give them a false sense of accomplishment. Violent video games encourage violence, criminal activities, use of drugs, sexual activities. And these can certainly hinder cognitive growth, enhancement, judgement and make the players violent. Additionally, with rise in video game addiction, there is an elevation in adolescent aggression. The

increase of games that are more realistic, engaging and elevatingly violent will contribute to more aggressive behaviour in adolescents in the upcoming years. The American Psychological Association (APA) considers violent video games a risk factor for aggression. Studies have shown that not only do violent games lead to the increase of violent actions, but also the foul language that the characters say can increase violent acts (Ivory & Kaestle, 2013). The makeup of violent games is causing aggressive behaviour in adolescents, especially because they are the age group that spends most of the time playing the games (Anderson, 2011). Shooting games have increased in the popularity. Few experts and researchers say that it can as well increases

aggressive behaviour in the adolescents who are playing it. There are frequent instances of rage-filled events among the adolescents restricted from playing such video games towards their parents. They become reckless when they are addicted to playing video games. They may act out against their parents and caregivers. Playing violent video games for prolonged hours on regular basis can impair their cognitive judgement and also make them apathetic to other people. Adolescents who play violent video games have escalated aggressive cognitions, aggressive behaviour, psychological arousal as well as objectionable behaviour. Studies have shown that playing violent video game exposure can elevate aggressive thoughts, behaviours and feelings in both the short-term and long-term. Spending too much time on playing violent video games can provoke adolescents to act in a violent and aggressive manner which is vexatious. Connecting to this, few review of literature studied on this topic was presented as below.

A study on "Impact of Playing Violent Video Games Among School Going Children" was conducted by Salman Khalil et.al (2019). The aim of the study was to assess the impact of playing violent video games among school going adolescents. A cross-sectional study was conducted among a random sample of 400 adolescents recruited from four selected English medium schools of a City of Northern India by convenient sampling. Each student was interviewed by using a self-structured questionnaire which covered demographics, video gaming behaviours, and effects of video game playing on adolescents. The results of the study revealed that 83.75% of the participants play video games while 1/3 rd preferred to play violent games. Most of the males were willing to apply actions of violent video games in real life.

A study on "Relationship between Violent Video Game Playing and Aggression among Adolescents" conducted by Vashnarekha

Kumarasurier et.al (2011) in Klang Valley, Malaysia. Adolescents between 13 to 17 years of age were recruited from two schools in the Klang Valley for the purpose of this study. Demographic information was collected along with Habitual Video Game Violence(HVGV) exposure scores. The Buss Perry Aggression Questionnaire which encompasses of four subscales assessing physical and verbal aggression (PA and VA, respectively), anger (A) and hostility (H), were administered to collect data on aggressive levels in the participants. 994 respondents (499 males and 495 females), from two schools in the Klang Valley completed the survey questionnaire. Findings indicated that, there were significant gender differences in three aspects, namely, violent video game playing habits, physical aggression and hostility. Significant correlations were found between violent videogame playing habits and physical aggression (.30) , verbal aggression (.16), anger (.17) and hostility (.13) at  $p < .01$ . The findings were accordant with previous research indicating a significant relationship between violent video game playing and aggression among adolescents.

A pilot study on "The Impact of Video Game on Aggressive Behaviours Among Adolescents" was conducted by Majid A.Aleissa et.al (2023) in Saudi Arabia. It was a community based cross-sectional study involving males and females, aged 15-18 years, in both private and public secondary schools in the five main regions of Saudi Arabia. A modified aggression questionnaire comprised 29 items and scored on a 5 point Likert scale was electronically self-administered for each participant. The survey measured hostility, verbal aggression, physical aggression and anger. A total of 4,840 students participated in the study with an average age of  $16.15 \pm 3.98$  years. The findings showed that males frequently played played video games compared with females.

The average playing time per day was significant across males. Females were more likely to show anger and hostility. However, males were more likely to show physical aggression.

### Objectives

1. To determine the relation between level of violent content and the duration of time spent in playing the video games with adolescent boys and girls aggression.
2. To examine the interdependence of aggression on the exposure to violent video games.

### Hypotheses

- The extent of involvement in video games is not dependent on the gender.
- There is no interdependence of aggression on the exposure to violent video games among the respondents.
- The level of violent content and the amount of time spent in playing the video games has no relation with adolescent aggression.

### Method

#### Sample

A sample of 100 adolescents of the age group of 13-15 years from urban area of Bangalore district was randomly selected for the present study. The tool was used to elicit information were "Video Game Questionnaire" designed by Anderson and Dill (2000), Buss Perry Questionnaire which was developed by Arnold H.Buss and Mark Perry (1992), and questions from Online Survey on Video Game Violence and Children. The questionnaire consists of 63 questions –16 questions in basic data, 10 questions in the category of game related data, 8 questions in the specific data and lastly, 29 questions in aggression data. Prior

permission was taken from the respective authority. Visits to the selected school were made to collect information on the effect of playing violent video games on aggression among early adolescents. The respondents were requested to fill the questionnaire. The sample was collected from C.B.Bhandari Jain High School, Bangalore.

### Results and Discussion

Table 1. Classification of Respondents by Personal Characteristics

N=100

Characteristics	Category	Respondents	
		Number	Percent
Age group	13 years	95	95.0
	14 years	5	5.0
Gender	Male	52	52.0
	Female	48	48.0
Class studying	7 <sup>th</sup> Std	100	100.0
	8 <sup>th</sup> Std	0	0.0
Medium of Instruction	Kannada	0	0.0
	English	100	100.0
Total		100	100.0

Table 1 and Fig 1 depict the classification of respondents by personal characteristics. It reveals that 95% and 5% of respondents belongs to the age group of 13 and 14 years respectively. Also, 52% of the respondents are male and 48% of respondents are female who are studying in 7th standard. The medium of instruction in the school is English.

Table 2 and Fig 2 represents the response on frequency of playing game in recent months. It can be seen that 34.6% of male respondents and 54.2% of female respondents have played the game rarely. The table depicts that 48.1% of male and 41.7% of female have occasionally played the game. Whereas, 17.3% male

respondents and 4.1% female respondents have played the game oftentimes.

Table 2. Response by Gender on frequency of playing game in recent months

How often have you played this game in recent months	Respondents						χ <sup>2</sup> Test
	Male		Female		Combined		
	N	%	N	%	N	%	
Rarely	18	34.6	26	54.2	44	44.0	6.32*
Occasionally	25	48.1	20	41.7	45	45.0	
Often	9	17.3	2	4.1	11	11.0	
Total	52	100.0	48	100.0	100	100.0	

\*Significant at 5% level,  $\chi^2(0.05, 2df) = 5.991$

Overall, it can be observed that 44% of respondents have played the game rarely and it can be seen that most of the respondents i.e., 45% are occasional players, and also it indicates that 11% of them have played the game oftentimes which shows that they are highly addicted to the video games.

The data subjected to chi-square test reveals the difference of frequency of playing game by male and female respondents in recent months. It was found to be statistically significant ( $\chi^2 = 6.32^*$ ). It shows that male respondents were more involved in playing video games than female respondents. Probable reasons could be that science shows that the part the brain associated with reward is more stimulated in males than females, during video game play. Thus, rejecting the null hypothesis stated that the extent of involvement in video games is not dependent on the gender. Similar results were found in a study titled "The Impact on Aggressive Behaviours Among Adolescents" conducted by Majid A. Aleissa et.al (2023) showed that males frequently played video games compared with females and the

average playing time per day was significant across males.

Table 3. Association between violent content of the game and aggression level

How violent is the content of this game	Sample	Respondents on Aggression level						χ <sup>2</sup> Test
		Low		Medium		High		
		N	%	N	%	N	%	
Low	48	16	33.3	26	54.2	6	12.5	11.05*
Moderate	22	5	22.7	12	54.5	5	22.7	
High	30	1	3.3	20	66.7	9	30.0	
Total	100	22	22.0	58	58.0	20	20.0	

\*Significant at 5% level,  $\chi^2(0.05, 4df) = 9.488$

The above table represents association between violent content of the game and aggression level. The results reveals that when the violent content of the game is low, 33.3% of the respondents categorizes in low aggression level, 54.2% of them classifies under medium level of aggression and 12.5% of respondents have high level of aggression. When violent content of the game is moderate, 22.7% of the respondents categorizes in low level of aggression, 54.5% of them classifies under medium level of aggression, and 22.7% of the respondents comes under high level of aggression. When the violent content of respondents is high, then only 3.3% of the respondents of them categorizes in low aggression level, 66.7% of them comes under medium aggression level and 30% of the respondents classifies under high aggression level. Overall, the results reveals that majority of the respondents (58%) classifies under moderate level of aggression, 22% of them categorizes under low aggression level, and 20% of them comes under high level of aggression. The results obtained reveals that inspite of the level of violent content of the game, majority of the respondents comes

under medium level of aggression. The data was subjected to chi square which reveals that it is statistically significant. The probable reasons could be that regardless of the violent content, the gruesome content of the violent video games has an impact on the aggression level of the respondents. The results rejects the null hypothesis which proposes that there is no interdependence of aggression on the exposure to violent video games and level of violent content and the amount of time spent in playing the video games has no relation with adolescent aggression.

### Conclusion

The data obtained from the study states that in comparison with female respondents, majority of male respondents played video games more frequently. It is also observed that when compared to female respondents, greater portion of male respondents played video games which has high level of violent content and also which has high level of gory graphics. Alongside, majority of the respondents categorized the games they played under the category of fighting with weapons which collectively signifies that larger proportion of the respondents are exposed to violence and gruesome content in violent video games. Majority of them agreed that playing video games give them joy and pleasure. The results also show that majority of the respondents are categorized under moderate level of aggression level. The results obtained signifies that inspite of the level of violent content of the video games, the gruesome content of the violent video games has an influence on the aggression of the adolescents. It also implies

that playing violent video games desensitize players to real-life violence and cause aggression in the adolescents who are in a vulnerable stage. It is important to recognize that playing violent video games frequently hampers the behaviour, growth and academic involvement of the children and adolescents.

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