



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.3842823>Available online at: <http://www.iajps.com>

Research Article

**TO EXAMINE THE RELATION OF AGGRESSION IN
CHILDREN BEHAVIOR AND OVER PLAYING OF VIDEO
GAMES: A DESCRIPTIVE CROSS-SECTIONAL STUDY****Dr. Muhammad Nouman¹, Dr. Ahmad Saulat², Dr. Sadia Ahsaan³**¹ Medical Officer THQ Hospital, Mian Channu² Demonstrator at Rashid Latif Medical College, Lahore³ Woman Medical Officer at BHU Ahmedabad Pind Dadhan Khan, Jhelum**Article Received:** March 2020**Accepted:** April 2020**Published:** May 2020**Abstract:**

Objective: This study was conducted to examine the relation among aggressiveness of children and over playing of video games.

Study design: Descriptive cross-sectional study.

Place and Duration: We conducted this study over period of three months from September to October 2019 in the community and elementary schools of Lahore.

Methodology: A total number of 100 children were included in this study. Both male and females were included. Parents / guardians along with children belonging to both genders were included in the survey. The children were assessed on two types of questionnaires. The data was analyzed in Statistical Package Social Sciences software package (SPSS) 20 using Pearson Chi-Square test and descriptive statistics.

Results: The participant children were 100 in total and from age 5 to 11 years with mean age of 8.54 ± 2.7 years. Out of them 11 children studied in pre-school level, 46 belonged to primary grade and 43 children studied in secondary grade. Male children were 56% and female 44%. As per observed by the data collected by parents the more than 50% children played video games regularly and once, they started to play, the playing session of 80% children lasted for up to three hours. P-value after applying Pearson chi square test has also revealed that there is an association lying between frequency of violent video game playing and two parameters of assessing aggressive behaviours which were "Child fighting frequency" and "Child arguing frequency".

Conclusion: Video games play a prominent role in boosting the aggressive emotions in children.

Keywords: Video gaming, aggression, children, fighting.

Corresponding author:**Dr. Muhammad Nouman,**

Medical Officer THQ Hospital, Mian Channu

QR code



Please cite this article in press Muhammad Nouman *et al*, **To Examine The Relation Of Aggression In Children Behavior And Over Playing Of Video Games: A Descriptive Cross-Sectional Study.**, *Indo Am. J. P. Sci.*, 2020; 07(05).

INTRODUCTION:

Out of many absolute vital needs of children, the most prominent one is a need to play. This spirit of participating in a game, aids the young ones to dig into various aspects of creativity and to learn many new things, for instance, rules of friendly companionship and skills to deal with each other. Amongst various forms of games, the video game industry has achieved a paramount existence in the field of entertainment. It has grown into a remunerative business of generating huge sales annually. It readily acquired a title of "The most famous form of entertainment media" within other categories of media.[1]

Since the beginning of 1970s, computer and video games first appeared in the world of children and made them highly satisfied with a deep emotion touching content. The chief subject of these games was Adventure.[2] The emergence of the computerized technology has contributed excessively in modifying the entertainment industry. The invention of cell phones, tablets, video game consoles like Xbox has provided unexampled approach to the video games, movies, TV shows, etc. Among these sources of video games, the mobile phones have provided maximum convenience to the children being the easiest portable electronic source.[3]

Since the time of arrival, no form of entertainment impacted human lives as much as video games industry has done.[4] Video games constitute a largest percentage in the list of renowned recreational activities of children. Approximately 75% of Italian children and adolescents ranging from 6 to 17 years and 16 to 19 years play video games regularly.[5] Owing to the immense popularity of these games it is indispensable to evaluate effects that they may cause on children and to learn the factors which can contribute towards modification of those effects.

Nowadays the social development of children is occurring relatively more on digital media instead of playgrounds. Children are mostly attracted to digital games because they provide them a chance to escape the real world's boredom and get into colorful characters filled, magically interactive form of activity which leads to increased emotional attachment. American Academy of Paediatric has mentioned that on average a child spends seven hours a day on digital media, it can either be video game, computer or cell phone.[6] Excessive preference of video games over other activities has been labelled as Gaming Disorder and has been included in International Classification of Diseases by WHO.[7]

Gentile and Gentile have labelled the video games as "exemplary teachers" because they possess quite efficacious and influential tools of making people learn. Following activities in games and repeated practicing enhances the attention and learning ability of children. Therefore, there is a likely chance of imitation of the aggressive behaviour which stems out of violent nature of video games.[8] Parents express quite worrisome attitude towards the social skills and emotional attitudes of their children being influenced by video games in many aspects, along with, their academic performance.[9,10]

Aggression being a state of emotional disturbance and lack of control is growing grounds in minds of children with each passing day. This can be attributed to increased usage of violent video games. Their long-term process changes can be observed in Generalized Aggression Model; GAM. It elucidates that an aggressive behaviour is selected and followed in a video game and the way it re-enacted causes reinforcement of aggression related data which gets instilled in the minds of minors owing to excessive usage. Hence, every playing session of child act as an aiding tool in development of aggressive attitude which leads to long term alteration in their personality.[11]

Ways to deal with feelings of anger is a significant health issue. Aggressive notions, aggressive representation of ideas in video games, aggressive expectations eventually compel the individual towards aggressive attitude and it is the most common reason of the children presentation into medical centres for various mental health services.[12] The influence of violent video games causes the promotion of strong negative beliefs that if a person is stuck in a dispute or in anger, the most effective way to combat is by-aggression.[13] This study explores the children habit of playing video games, the role of parental monitoring in limiting the overly use and ultimately the determination of relation between the excessive use of video games and aggravation of aggressive attitude in children

METHODOLOGY:

This descriptive cross-sectional study was conducted over period of three months from September to October 2019 in the community and elementary schools of Lahore. The survey includes 100 school going children. Parents / guardians along with children belonging to both genders were included in the survey.

The children were assessed on two types of questionnaires. First one is obtained from various survey tools available online on multiple survey websites.[14] It is based on various aspects of video games which are observed by parents/guardians to

determine the nature, frequency and duration of playing session of video games as well as parental monitoring and the other questionnaire is based on The Peer aggressive and Reactive behaviour questionnaire, to evaluate the relation of above-mentioned survey with direct aggressive behaviour of children.[15]

The data was analyzed in Statistical Package Social Sciences software package (SPSS) 20 using Pearson Chi-Square test and descriptive statistics.

RESULTS:

The participant children were from age 5 to 11 years with mean age 8.54 ± 2.7 . Out of them 11 children studied in pre-school level, 46 belonged to primary grade and 43 children studied in secondary grade. Male children were 56% and female 44%.

As per observed by the data collected by parents the more than 50% children played video games regularly (table 1) and once they started to play, the playing session of 80% children lasted for up to three hours.

Figure No 01: Duration of Video Game Playing Session in Children



Table No 01: Incidence of Video Game Playing Frequency

Incidence of video games	Once in Month	Twice in Month	Once in Week	Daily
Frequency	8	14	25	53

Almost 50% children played 'Other' games, on elaborating this category most participants told they play fighting games like tomb raider, call of duty, GTA. So, the net percentage of violent games assessed by this data became 60%. Racing games were played by 20% children and games like bubble smasher, candy crush, mine craft, subway surfers were played by almost 20% children.

Figure No 03: Genre of Video Games Children Played Regularly

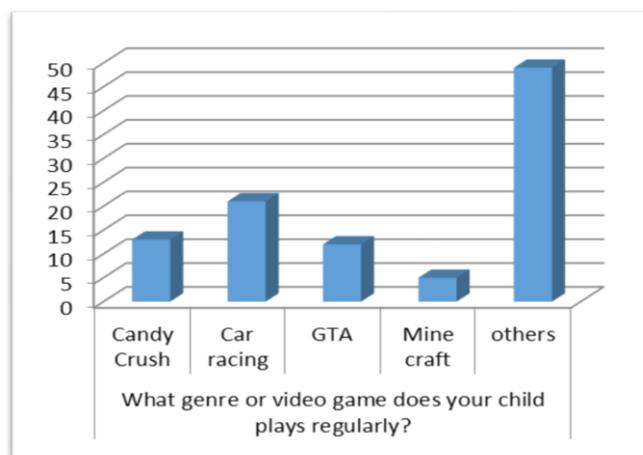


Figure No 02: Platform Used by Children for Playing Games

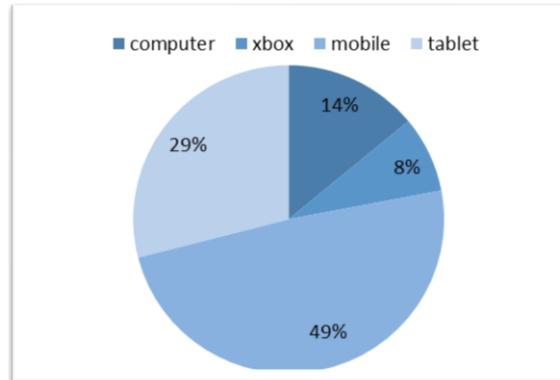


Table No 02: Association Between Frequency of Violent Video Games with Fighting and Arguing Frequency of Children

Does the child play games have strong language blood violence	How many times does child get into fight				P-Value	How many times does child argue			P-Value
	Never	Once in month	Once in week	Everyday		Never	Sometimes	Often/Always	
Yes, with most violent content	0	0	46	16	0.000	0	56	6	0.000
Yes, with mild violent content	18	14	0	6		18	0	20	

Table above shows the relationship between the frequency of violent video games playing by the children and the frequency of expression of aggressive behaviour. It is clearly seen in the table that the children who played games with more violent content were indulged more in fighting and arguing. Moreover, p-value after applying Pearson chi square test has also revealed that there is an association lying between frequency of violent video game playing and two parameters of assessing aggressive behaviours which were “Child fighting frequency” and “Child arguing frequency”.

Table No 03: Parental Monitoring of Game Content

Parental Monitoring of game content	Yes	No
Frequency	88	12

DISCUSSION:

The primary goal of this three months study is to provide an insight to the situation which has arisen due to extraordinary indulgence of children into video games and its effects on fostering the aggressive behaviour particularly in 5-11year's children.

For a long time, a strong relation between aggression and games has been suspected by researchers in various individuals but it is observed in children particularly in more pronounced manner as compared to adults. Literature shows that many games have been identified to cause long-term effects on the mental attitude of children just like the aggression brought by television violence. But unlike television the games have been observed to

affect the cognitive structure more because in video games the person gets chance to practice the aggressive behaviour.[16]

Our results revealed that almost 53% of children played games on daily basis and whenever they started playing, the session used to last for more than one to three hours. Table 1 and Fig 1. In a survey done in 2009, more than 80% of American youngsters between age 8-18years were observed playing video games for an average count of more than 13 hours per week.[17]

Approximately 50% games were reported to be played on mobile phones (figure 2). In US many parents were found using mobile phones to entertain their bored children as taking an advantage of

entertaining and learning abilities of smart phones. This leads to an easy access of young ones to the mobile phones. Hence, excessive smart gaming and ultimately generating the feelings of aggression.[18] Another important notion speculated by our study is the preference of violent genre of video games. Around 60% children preferred games mostly with violent content (Tomb raider, Call of Duty, GTA) offering sights of gore blood, adventure and strong emotions as compared to puzzle making, racing and other entertaining games (40%). Kinzie and Joseph explained that children are more likely to play games involving adventurous, exploratory and creative mode instead of problem solving.[19]

Parental monitoring holds a covariant position in affecting frequency of video game playing. It mitigates the negative effects spread by the amount and nature of video games. Greater the number of educated parents more is the chance of active monitoring and involvement to be expected from them. 88% of parents in our study exclaimed that they keep an eye over the content their children play. (Table 2) Gentile and Reimer expressed that children who played a lot of violent video games did not commit any aggressive act because of an important protective factor which was active parental monitoring.[20]

Our participant observation taught us that there was a significant relation between over playing of video games (Figure 1, Table 1) and increased fighting and argument frequency of aggressive behaviour in children (Table 3). British Association of Anger Management, while its survey with 204 parents of young children, showed a positive relation between violent video games playing frequency and emotions of being less co-operative, rude in argument and aggressive.[21] Anderson and Warburton explained in their book [22] that over exposure of violent video games promotes the likeliness of aggressive thoughts, behaviour and attitude. Over playing of fierce content leads to desensitization to violent activities and cause feelings of lack of empathy among individuals and provokes fighting and aggression.

CONCLUSION:

There is a linkage between video games and aggression and most affected players are the minors with immature minds, who have difficulty differentiating real life from game world. They get a huge impact of these violent games on their personalities and later exhibit emotional aggression whenever incited.

REFERENCES:

1. Internet Fantasy Violence: A Test of Aggression in an Online Game:

Communication Monographs 2005; 72(2):217–233.

2. Gunter B. The Effects of Video Games on Children: Sheffield Academic Press; 2002.
3. Keating L. Gaming On-The-Go: The Future of Mobile Gaming vs. Consoles. Tech Times. 2015.
<https://www.techtimes.com/articles/57048/20150604/gaming-go-future-mobile-vs-consoles.htm>
4. Gentile D. Pathological video-game use among youth ages 8 to 18: a national study. Psychol Sci. 2009; 20(5):594-602.
5. Europe ISFo. Europe: Game Vision Europe; 2010.
https://www.isfe.eu/sites/isfe.eu/files/video_gamers_in_europe_2010.pdf
6. Media and Children Communication Toolkit [database on the Internet] [cited 18 Aug]. Available from: <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Pages/Media-and-Children.aspx>.
7. Organization WH. Gaming disorder. 2018 [18 Aug]; Available from: <http://www.who.int/features/qa/gaming-disorder/en/>.
8. Gentile DAGÆJR. Violent Video Games as Exemplary Teachers: A Conceptual Analysis. Journal of Youth and Adolescence. 2008; 37:127-41.
9. Craig A. Anderson DAG, & Katherine E. Buckley. Violent Video Game Effects on Children and Adolescents. New York: Oxford University Press; 2007.
10. Lawrence A. Kutner CKO, Dorothy E. Warner and Sarah M Hertzog. Parents' and Sons' Perspectives on Video Game Play: A Qualitative Study. Journal of Adolescent. 2008; 23(1):76-96.
11. Anderson CA BB. Human aggression. Annual Review of Psychology. 2002; 53:27-51.
12. Russell PL, Nurius PS, Herting JR, Walsh E, Thompson EA. Violent Victimization and Perpetration: Joint and Distinctive Implications for Adolescent Development. Vict Offender. 2010; 5(4):329-53.
13. Craig A. Anderson BJB. Effects of Violent Video Games on Aggressive Behavior, Aggressive Cognition, Aggressive Affect, Physiological Arousal, and Prosocial Behavior: A Meta-Analytic Review of the Scientific Literature. Psychol Sci. 2001; 12(5)353-59.
14. Monkey. S. Codman Academy Junk Food Questionnaire. n.d. [cited 2018 17-Aug]; Available from: <https://www.surveymonkey.com/r/DPDMY6P>.
15. Borsa JC, Bandeira DR. The Peer Aggressive and Reactive Behaviors Questionnaire (PARB-Q): evidence of validity in the Brazilian context.

- Trends Psychiatry Psychother. 2014;36(2):89-100.
16. Anderson CA, Dill KE. Video Games and Aggressive Thoughts, Feelings, and Behavior in the Laboratory and in Life. *J Pers Soc Psychol.* 2000; 78(4):772-90.
 17. Gentile D. Pathological video-game use among youth ages 8 to 18: a national study. *Psychol Sci.* 2009; 20(5):594-602.
 18. Goldberg. S. Parents using smartphones to entertain bored kids, *Living with Technology.* CNN. 2010 April 27, 2010. <http://edition.cnn.com/2010/TECH/04/26/smartphones.kids/index.html>
 19. Kinzie M. B. JDRD. Gender differences in game activity preferences of middle school children: implications for educational game design. *Edu Tech Research and Development.* 2008; 56(5-6):643-63.
 20. Gentile DA, Reimer RA, Nathanson AI, Walsh DA, Eisenmann JC. Protective Effects of Parental Monitoring of Children's Media Use. *JAMA Pediatr.* 2014; 168(5):479-84.
 21. Vinter P. Children 'made rude, uncooperative and aggressive by video games' with some playing for more than two hours a day during term-time. *Mail Online* 2012 5 June 2012. <https://www.dailymail.co.uk/news/article-2155067/Children-rude-uncooperative-aggressive-video-games.html>
 22. Craig A Anderson WAW. *Growing up fast and furious: Reviewing the Impacts of Violent and Sexualized Media on Children.* Wayne Warburton DB, editor. Annandale, NSW, Australia: The Federation Press; January 2012.