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Aggressive Behaviour in relation to Video Games Addiction among Elementary School Students of Mizoram and Kerala: A Cross-Sectional Study

*Dr. Lalhriatpuii
Assistant Professor, Department of Education, Mizoram University
**Dr. Lalrammawia Tochhawng
Professor & Head, Department of Education, Mizoram University
***Dr. Muttu Vemula
Assistant Professor, Department of Education, Mizoram University

Abstract

The intent of this study is to heighten awareness among upper primary school students in Kerala and Mizoram on the potential challenges associated with video game addiction and their effect on aggression. The study collected data using a normative survey approach and a correlational research methodology. Every student between the ages of nine and fourteen who are enrolled in upper primary classes at different public and private schools in Kerala and Mizoram are taken into consideration. Descriptive statistics mean, standard deviation, one-way ANOVA, independent sample t-tests, and post hoc analyses were performed on the data in order to identify any significant correlations between the amount of aggression and video game addiction.. The study revealed that a sizable fraction of the students in the study, especially those in Mizoram, were video game addicts and generally displayed moderate levels of aggressive behaviour. Kerala ranked lower in these categories than Mizoram, which appeared to have a greater prevalence of severe video game addiction and violent behaviour.

Key words: Video Game, Addiction, Aggressive Behaviour, Elementary School Students, Mizoram, Kerela.

INTRODUCTION

Since the 1970s, video games have become an integral element of modern culture (Turan, 2021). The early days of video games were for children's enjoyment and entertainment, but that is no longer the case. Nobody can categorise video games into a single age group or gender; everyone enjoys playing them because of the appealing animation and excellent background and sound quality. Children's entertainment equipment and preferences have changed with the development of technology. Many plays and physical toys are replaced by computers and video games. The latest video games possess more stimulating visual and auditory effects, which will cause individuals to spend an excessive amount of their time on video games.Video games play a vital role in children's learning, academic careers, innovation skills development and personality development, but if they are not adopted according to some criteria, they can negatively affect the minds of youth and children. Video game addiction influences children's academic success in a negative way. Many top-selling videogames have a lot of violence elements and harmful content, which have and can cause negative social effects, especially on young minds. Video game addiction is not the same as any other addiction, but it is an excessive use of technology, in which players spend more and more time on their computers, which affects their health, social life, and the lives of those around them.In educational contexts, aggressive behaviour by pupils is a worrying and common problem. According to Espelage and Swearer (2003), it includes a wide variety of actions, including physical aggressiveness (such as punching or fighting), verbal aggression (such as name-calling or bullying), and relational aggression (such as isolating people or spreading rumours). This kind of behaviour can have negative effects on both the aggressors and their victims as well as the overall learning environment. According to Anderson and Bushman (2001), aggression is the "behaviour intended to harm another individual who is motivated to avoid that harm". So aggression due to playing violence video games is kind of a behaviour and there's an innocent victim. Addicted video gamers who have poor self-control or poor social skills are more likely to exhibit aggressive behaviour.Due to its effects on both students and the educational community's overall well-being, aggressive behaviour among students has received a lot of attention recently. According to research, violent behaviour in schools may result in detrimental

consequences such as poorer academic achievement, higher dropout rates, and a hostile learning environment. For effective preventative and intervention techniques to be developed, it is crucial to understand the underlying causes of violence. To provide safe and supportive learning environments, this issue requires a multidisciplinary approach involving educators, parents, mental health specialists, and lawmakers. Conflict resolution programmes, anti-bullying campaigns, counselling services, and social-emotional learning curricula that educate children on how to control their emotions and handle disagreements amicably are a few strategies for dealing with violent behaviour.

REVIEW OF RELATED LITERATURE

Video Game Addiction

Esposito et al. (2020) conducted a study on gaming addiction in pre-adolescent and teenage pupils. The study identified problematic pupils using the Game Addiction Scale (GAS), discovering a prevalence of 1.93%. Notably, male students are more prone to engage in compulsive gaming behaviour and spend more time playing video games. Increased gaming frequency and length are associated with increased addiction levels, but better education levels are associated with decreased addiction risk. The study emphasises the relevance of using both Monothetic and Polythetic measures for measuring video game addiction.

Griffiths (2022) investigated a study regarding recent systematic study on online gaming addiction in children and young people (Rosendo-Rios, Trott, and Shukla, 2022) may not give an all-encompassing picture of the subject. Numerous studies were likely ignored due to the narrow search criteria, which did not contain important keywords such as 'adolescent,' 'excessive gaming,' or 'video game addiction.' Furthermore, the inclusion criteria were expanded to include studies with participants under the age of 26, possibly incorporating older people. As a result, this systematic review should be seen as suggestive rather than final, indicating the need for more study into problematic gaming among kids.

Ankara and Baykal (2022) look at the socioeconomic aspects that influence digital gaming addiction in Turkey among Generation Z (those under the age of 18). The study examines the predictors of digital gaming addiction using data from 907 individuals and multivariate linear regressions. The study takes into account a variety of factors, including kid characteristics (e.g., age, gender, gaming platforms utilised, social activity), parent characteristics (e.g., education level, employment, maternal gaming behaviour), and family features (e.g., household income, number of children, access to play places). According to the findings, these elements have a crucial influence on developing digital gaming addiction among Generation Z in Turkey.

Mohammad et al. (2023) conducted a study on video game addiction, defined as excessive and repetitive internet gaming, which has emerged as a major public health issue in the digital era. With easy access to gaming on multiple platforms, its popularity has increased, paralleling brain alterations comparable to drug addiction. This review investigates the link between video game addiction and depression, as well as other psychological and societal difficulties. Its goal is to raise awareness by explaining addiction mechanisms, debating its legitimacy as an addiction, and highlighting indications and symptoms. Furthermore, the study discusses the effects of video game addiction as well as prospective treatment approaches, based on credible sources such as PubMed and ScienceDirect.

Aggressive Behaviour

Sobkin and Fedotova (2019) investigate how gender, age, social position at school, and online behaviour impact teens' views towards online aggressiveness. It discovers that leadership responsibilities, the increased usage of inflammatory words, and personal encounters with online hostility all have an impact on their opinions. Older students, particularly active users seeking attention, are more receptive to online harassment.

Benedetti et al. (2022) investigated the link between drug use and aggressive behaviour in Italian adolescents and young adults, taking parental effects into account. Parental rule-setting, monitoring, and emotional support were all protective factors against substance use, with the impact becoming stronger as the frequency of substance use rose. Substance use was linked to violent behaviour, and a lack of parental

surveillance and emotional support increased the chance of aggressive behaviour, particularly among teenagers. These insights can be used to develop focused preventative efforts.

Moro et al. (2022) investigated the relationship between excessive internet and social media use and teenage engagement in violent behaviour. The survey includes 2549 students from various educational levels in secondary education in the Basque Country. The findings show links between antisocial behaviour, bullying, and different types of information and communication technology use. Interestingly, gender differences had little effect on these associations, which hold for both boys and girls. The study emphasises the significance of these results in the educational community, emphasising the responsibility of school guidance departments in resolving such concerns.

Isaac and Opurum (2023) look into the variables that contribute to violent behaviour among secondary school students in Rivers State, Nigeria, with an emphasis on domestic violence and peer group impact. The study uses a correlational approach and comprises 420 SSII students from a population of 37,748 in the state's 276 public senior secondary schools. Data was collected using three instruments: the Domestic Violence Scale (DVS), the Peer Group Influence Scale (PGIS), and the Aggressive Behaviour Scale (ABS). The study reveals that various kinds of marital abuse and peer group influence independently predict violent behaviour in these adolescents. The research finishes with suggestions and consequences for counselling.

OBJECTIVES OF THE STUDY

- To study aggressive behaviour in relation to video game addiction
- To compare the mean video game addiction of elementary school students of Mizoram and Kerala
- To compare the mean aggressive behaviour of elementary school students of Mizoram and Kerala

HYPOTHESES OF THE STUDY

- There is a significant difference in the aggression of elementary school students of Mizoram and Kerala based on video game addiction
- There is a significant difference between elementary school students of Mizoram and Kerala in their aggressive behaviour addiction

METHODOLOGY

The research design of the study is correlational design. A normative survey method for data collection is followed. The normative survey method uses statistics and values considered normal for the group being surveyed to understand and collect data on a specific subject.

POPULATION AND SAMPLE SELECTED FOR THE STUDY

All the students studying in the upper primary of various government and private schools of Kerala and Mizoram, who are aged under the category of nine to fourteen years old are considered for the population of the present study.

TOOLS USED FOR THE STUDY

- Data bank
- Video Game Addiction Checklist developed by the researcher Shifna and supervising teacher Sameer Babu (2019).
- Aggressive Behaviour Scale developed by Sameer Babu, Sarwat Ali and R.S. Khan (2015).

Statistical Techniques Used for the Study

The collected data was coded and analysed using the SPSS Software. The data was subjected to descriptive statistics, mean, standard deviation, independent sample t-tests, one-way ANOVA, and posthoc tests used to find significant differences between aggressive level and video game addiction.

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RESULTS AND INTERPRETATION

Table 1*Descriptive statistical measures of the variables*

	N	Mean	Std. Deviation	Variance	Skewness	Kurtosis
Video Game Addiction	400	20.09	4.05	16.38	.99	1.43
Aggressive Behaviour	400	93.69	14.41	207.67	.48	.41

It can be inferred from table 1 that the mean and standard deviation of students in their video game addiction scores are 20.09 and 4.05 respectively. Similarly, the mean and standard deviation on aggressive behaviour are 93.69 and 14.41 respectively. The distributions are positively skewed for both the variables.

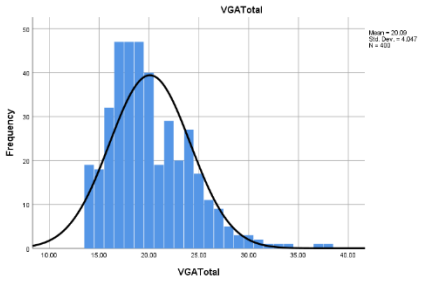

Figure 1: *Histogram- Video Game Addiction*

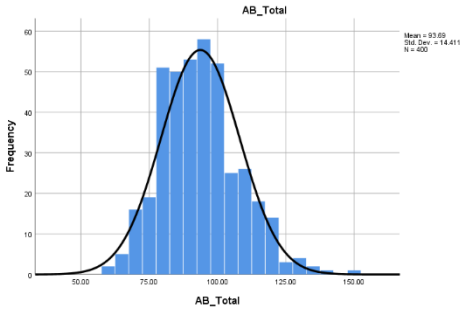

Figure 2: *Histogram- Aggressive Behaviour*

Table 2 Frequencies Based on Extent of Video Game Addiction

	Frequency	Percent	Valid Percent	Cumulative Percent
Severely Addicted Group	190	47.5	47.5	47.5
Moderately Addicted Group	141	35.3	35.3	82.8
Not Addicted Group	69	17.3	17.3	100.0
Total	400	100.0	100.0	

The grouping of students based on the video game addiction is carried out by taking the mean and standard deviation of the whole group of respondents and thus, the categorization is done through SPSS using recode. 190 students are severely addicted to video game addiction, and 141 of them are moderately addicted. Only 17.3% (N=69) are reported not addicted to video games which indicates that only few elementary school students are not addicted to video games.

Table 3 Result of Test of ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
AB_Total	Between Groups	7916.226	2	3958.113	20.966	.000
	Within Groups	74946.951	397	188.783		

	Total	82863.177	399			

It is seen from Table 3 that the ANOVA result while comparing the scores of video game-based three groups, are significant for aggressive behaviour (F=20.966, p<0.01). It is interpreted that in the level of aggressive behaviour, there is significant difference among the video game addiction-based students' groups.

Table 4 Results of Comparison of Variables- State-wise

State of Domicile		N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
VGA Total	Mizoram	200	21.1750	3.66765	5.531	398	0.000
	Kerala	200	19.0150	4.12917			
AB_Total	Mizoram	200	95.3100	15.60550	2.256	398	0.025
	Kerala	200	92.0750	12.94633			

The results of the independent sample t-test reported in Table 4 show that there is a significant difference between Mizoram and Kerala in terms of video game addiction (t198=5.531, p<0.01) and aggressive behaviour (t198=2.256, p<0.05).

MAJOR FINDINGS

- The mean and standard deviation of students in their video game addiction scores are 20.09 and 4.05 respectively.
- The mean and standard deviation on aggressive behaviour are 93.69 and 14.41 respectively.
- 190 students are severely addicted to video game addiction, and 141 of them are moderately addicted. Only 17.3% (N=69) are reported not addicted.
- While comparing the scores of video game-based three groups, are significant for the variable-aggressive behaviour (F=20.966, p<0.01).
- There is a significant difference between Mizoram and Kerala in terms of video game addiction (t198=5.531, p<0.01) and aggressive behaviour (t198=2.256, p<0.05).

CONCLUSION

The results of this data analysis provide a thorough understanding of the complicated problems that students are now facing in the classroom. There is a rising need for tailored treatments to address this issue, which is further highlighted by the prevalence of video game addiction and the high percentage of students who fall into the severely and moderately addicted categories. These results are consistent with other studies emphasising the connection between gaming addiction and stress, particularly among male students. Students frequently struggle with aggressive behaviour and the evidence shows that this problem fluctuate significantly depending on how addicted they are to video games. This highlights the interconnectivity of these issues and implies that violence may be exacerbated by video game addiction, producing a vicious cycle that requires careful consideration.These results highlight the need for comprehensive approaches that take into account the interactions between aggressive behaviour and video game addiction. In today's complicated educational environment, such approaches should be considerate of regional differences and work to support students' mental and emotional health. To better comprehend the underlying reasons and provide more successful remedies for these issues, additional study is very necessary.

EDUCATIONAL IMPLICATIONS

Education in digital literacy should be given top priority in the curriculum, say educators. This involves instructing students on how to use the internet appropriately, comprehend the dangers of excessive gaming, and form positive gaming habits. Schools can enable students to make educated decisions about their internet and video game use by promoting digital literacy. Educational institutions should incorporate the development of emotional intelligence into the curriculum to combat aggressive behaviour. This includes initiatives that encourage kids to understand and control their emotions, develop empathy for others, and create more positive interpersonal connections. Schools can lessen the

possibility of aggressive behaviours in pupils by encouraging emotional intelligence.Our study revealed that many kids choose to play video games since they don't have access to any other amusing activities. Because of their intricate, high-quality visuals, more lifelike imagery, usage of artificial intelligence, intricate game tactics, clever game inference engines, and human-machine interaction, violent video games are the most popular among kids and teenagers. Parents must to supervise their kids and the importance of courteous communication, digital citizenship, and ethical online behaviour cannot be overstated. By setting a positive example, schools may help kids establish proper online habits. Instead of encouraging fantasy and false imaginations, educators could speak more about the benefits of educational games or real-world games to help young brains grow into more professional and realistic beings. Our investigation and survey revealed that the popularity of video games is having both beneficial and bad consequences. While some video game players have disrupted their schoolwork and health by playing the games for extended periods of time, many young people and youngsters just treat them like any other game. Many young people and youngsters rejected that it was an addiction or a terrible habit. Academic institutions ought to encourage interdisciplinary cooperation in order to effectively address the intricate problems related to the welfare of their students. Teachers, therapists, counsellors, psychologists, and other medical professionals should work together to provide comprehensive care to children who are experiencing mental health issues. Including the wider community is crucial. Collaborating with local community groups, health care providers, and mental health specialists can help create a comprehensive support network for students dealing with mental health issues. Schools should actively include communities in initiatives aimed at enhancing the wellness of their students. The ramifications for education that are covered here emphasise how important it is to have a comprehensive plan for students' welfare in the digital age. Schools may support students in managing the difficulties of the digital world while maintaining their general mental and emotional well-being by giving them the information, tools, and assistance they require.

REFERENCES

Anderson, C. A., & Bushman, B. J. (2001). 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. *Psychological Science, 12*(5), 353–359. https://doi.org/10.1111/1467-9280.00366Esposito, M. R., Serra, N., Guillari, A., Simeone, S., Sarracino, F., Continisio, G. I., and Rea, T. (2020). An investigation into video game addiction in pre-adolescents and adolescents: a cross-sectional study. *Medicina, 56*(5), 221. DOI:10.3390/medicina56050221
Griffiths, M. D. (2022). Online gaming addiction in youth: Some comments on Rosendo-Rios et al. (2022). *Addictive Behaviors, 130*, 107311. DOI: 10.1016/j.addbeh.2022.107311
Ankara, H. G., and Baykal, D. (2022). The socioeconomic and sociodemographic factors affecting digital gaming addiction among generation Z. *Telematics and Informatics Reports, 8,* 100032. DOI:10.1016/j.teler.2022.100032
Mohammad, S., Jan, R. A., Alsaedi, S. L., and Jan, R. (2023). Symptoms, mechanisms, and treatments of video game addiction. *Cureus, 15*(3). DOI: 10.7759/cureus.36957
Sobkin, V. S., and Fedotova, A. V. (2019). Teenagers in social networks: patterns of usage and aggressiveness. *Journal of Siberian Federal University Humanities and Social Sciences, 9*(12), 1733–1752. DOI:10.17516/1997-1370-0480
Benedetti, E., Colasante, E., Cerrai, S., Gerra, G., Tadonio, L., Pellegrini, P., and Molinaro, S. (2022). Violent behaviours among adolescents and young adults: association with psychoactive substance use and parenting styles. *International journal of environmental research and public health, 19*(7), 3756. DOI: 10.3390/ijerph19073756
Moro, Á., Ruiz-Narezo, M., and Fonseca, J. (2022). Use of social networks, video games and violent behaviour in adolescence among secondary school students in the Basque Country. *BMC psychology, 10*(1), 1-10. DOI:10.1186/s40359-022-00947-w