

# Online Game Addiction in relation to Aggressive Behaviour among Higher Secondary School Students

Dr. Mohammad Sayid Bhat\*

Ms. Ulfat Hassan\*\*

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## ABSTRACT

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*The inquiry was conducted on higher secondary school students to checkout the relation between Online Game Addiction and Aggressive Behaviour among Students studying in both government and private Higher Secondary Schools. A selected sample of 108 Higher Secondary School Students (64 government and 44 private) was selected randomly from Education Zone Ganderbal of District Ganderbal of Kashmir valley. For collecting data, Online Game Addiction Scale and Buss-Perry Aggression Questionnaire (BPAQ) were administered. The collected data was processed for statistical analysis through Mean, SD, Coefficient of Correlation and t-test by applying Statistical Package for Social Sciences (SPSS). The results of the study highlighted a positive correlation between two variables, Online Game Addiction and Aggressive Behavior among Higher Secondary School Students of Education Zone Ganderbal of District Ganderbal. Further, the inquiry reflected that there is no significant difference in Online Game Addiction and Aggressive Behaviour with respect to gender and type of school.*

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**Keywords:** *Online Game Addiction; Aggressive Behaviour; Correlation; Gender; Type of School.*

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\* Assistant Professor Department of Education Central University of Kashmir

\*\* Post Graduate Student, Department of Education Central University of Kashmir

## INTRODUCTION

With the increased use of Internet, more and more people have access to online games. Online games are those games which are played online while using the internet services. Online games are very common on new gaming platforms, such as mobile devices, personal computers and consoles, which includes first-person shooters, Player Unknowns Battlegrounds, Free Fire, Call of Duty, Clash of Clans, and Massively Multiplayer Online Role-Playing Games (MMORPG). Nowadays, Online gaming is the most common form of entertainment that has influenced the quality of life of players to a great extent (Shen & Williams, 2011). The structure of online games varies from simple text-based environments to the incorporation of complex graphics and virtual worlds. The occurrence of components of online game can vary from minor features like online leader board or playing directly against other players. Generally, most of the online games prefer to create their own online community and few other games like social games fuse the players existing real-life communities.

By the term aggression we mean to a wide variety of behaviours which can harm you as well as others both physically and psychologically within the environment. This type of behaviour depicts the sign of any mental health disorder, a substance use disorder, or even a medical disorder. Aggression can be visible in different parameters, that is, Physical, Verbal, Mental, and Emotional. We usually take aggression in physical forms like it can be hitting or pushing but psychological aggression is equally more damaging. For instance, intimidating or verbally

scolding another person are some examples of verbal, mental, and emotional aggression. Aggression as defined by Anderson & Bushman, 2002 is any behavior that is deliberately directed towards other individual with the conscious intent to harm him or her.

Playing online games can add to the level of aggression by affecting ones cognitive and emotional beliefs (Anderson & Bushman, 2002). Online game addiction and the habitual computer use has statistically significant difference (Muezzin and Emre, 2015). There is a positive correlation between exposure to aggressive online games, addiction to internet, less self-control, and aggression (Teng et al, 2014). More problems related to personality and temperament are being faced by Video game addicts as compared to those who are not addicted and video game addicts scored high in terms of aggression and depress mood as compared to those who are non-addicts (Asghar, and Noor, 2016). Game addiction and academic achievement is negatively correlated (Sahin, *et al*, 2014).

Males are more problematic gamers than females (Khan, and Muqtadir, 2014). More the time spent on playing violent online games more is the increased level of physical aggression. In spite of violent content, higher levels of pathological gaming indicated an increase in physical aggression among boys (Lemmens et al, 2010). Both personality and perception are significantly associated with online game addiction (Bowman, 2008). According to one of the studies Aggression and narcissistic personality traits share positive correlation with online game addiction, while as self-control share negative correlation with online game addiction. There are some psychological characteristics like

aggression, self-control, and narcissistic personality traits which may provoke some individuals to become addicted to such online games (Kim et al, 2007).

Boys are more aggressive than girls. From studies we also come to know that boys have higher levels of both physical and verbal aggression than girls. It was also found that anger and hostility is more seen among boys than girl students (Wani et al, 2017). Physical and verbal aggression was found among children rather than relational aggression (Wong and Mun, 2017).Improvement in parenting skills and the ability to establish constructive and good relations can reduce aggressive behaviours in adolescents (Kilicarslan et al, 2017). Negative bond sharing of family with children and negative environment such as broken families, death of parents and other related problems, unfriendly and authoritative behaviour of parents and teachers, academic stress, and injustice in society are some major causes of aggressive behaviour of students at secondary level. When boys are not given opportunity to select their subject of interest it makes them more aggressive and likely when girls feel that they are not enjoying the same rights as boys there arises the feeling of gender biasness which in turn leads to aggression (Fatima S, 2015). The aggression of school students and academic achievement share negative correlation (Aggarwal and Bihari, 2014). Self-esteem and Aggression are negatively correlated (Shaheen, and Jahan, 2014). Physical aggression is significantly higher in younger adolescents (Datta, and Firdoush, 2012).

## **Justification of the Study**

We have witnessed a technological revolution in the last few decades and we are living in the era where information technology has become an inherent part of almost every field of our lives. The way humans communicate both at local level and round the globe is intensified and revolutionized by the use of Internet. It is because of the use of internet that all information and news about the world is available within a fraction of time and because of this thing everyone wants to be a part of it. Internet has found its application almost every sphere of our lives. The students can get the knowledge about the world in a very less time while using the internet services. But many students waste their precious time on the internet. They visit websites which are not meant for them and play online games for unlimited period of time and then they become addicted. The addiction affects them physically as well mentally. After reviewing the related literature no study was found in the area where online game addiction in relation to Aggressive Behaviour especially at the higher secondary school level was studied. The literature was reviewed at the national and international level. Keeping in view the importance of the study and to fill this vacuum the investigator has humbly chosen this area of investigation and the topic selected was framed as, “Online Game Addiction in relation to Aggressive Behaviour among Higher Secondary School Students”.

## **STATEMENT OF THE PROBLEM**

‘Online Game Addiction in relation to Aggressive Behaviour among Higher Secondary School Students’

## **OBJECTIVES OF THE STUDY**

1. To study the online game addiction among higher secondary school students of Education Zone Ganderbal.
2. To compare Male and female of higher secondary school students of Education Zone Ganderbal on online game addiction.
3. To compare government and private higher secondary school students of Education Zone Ganderbal on online game addiction.
4. To study the aggressive behaviour among higher secondary school students of Education Zone Ganderbal.
5. To compare male and female higher secondary school students of Education Zone Ganderbal on aggressive behaviour.
6. To compare government and private higher secondary school students of Education Zone Ganderbal on aggressive behaviour.
7. To find out the correlation between online game addiction and aggressive behaviour among higher secondary school students of Education Zone Ganderbal.

## **HYPOTHESES**

1. There is no significant difference between male and female higher secondary school students of Education Zone Ganderbal on online game addiction.

2. There is no significant difference between government and private higher secondary school students of Education Zone Ganderbal on online game addiction.
3. There is no significant difference between male and female higher secondary school students of Education Zone Ganderbal on aggression.
4. There is no significant difference between government and private higher secondary school students of Education Zone Ganderbal
5. There is significant relationship between online game addiction and aggressive behaviour among higher secondary school students of Education Zone Ganderbal of district Ganderbal.

### **OPERATIONAL DEFINITIONS OF TERMS**

- **Online Game Addiction:** In the present research study means the scores obtained by respondents on Online Game Addiction Scale.
- **Aggressive Behaviour:** In the present investigation Aggressive Behaviour implies the scores gained by the respondents on Buss-Perry Aggression Questionnaire.
- **Higher Secondary School Students:** In this study Higher Secondary School Students are the students studying in 12<sup>th</sup> standard in any higher Secondary School of Education Zone of District Ganderbal.
- **Type of School:** In this study the Type of School implies any government and private higher

secondary school of Education Zone Ganderbal of Ganderbal district.

## **PROCEDURE**

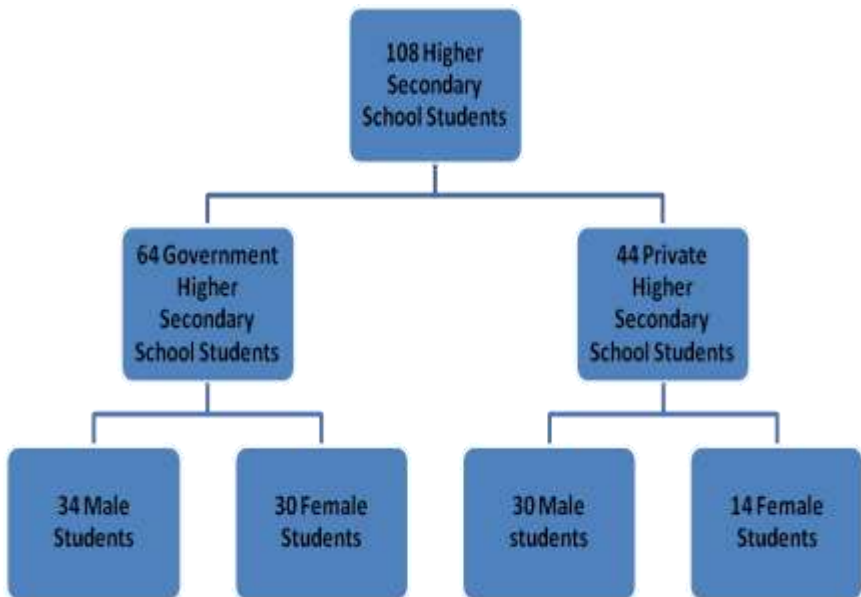
### **SAMPLE**

The sample selected for the present study comprised of 108 participants who were selected through simple random sampling technique from various government and private higher secondary schools of Education Zone Ganderbal of district Ganderbal of Kashmir valley. The selected sample was divided on the basis of gender and school type. These students were selected from the following five higher secondary schools of Education Zone Ganderbal of District Ganderbal:

1. Boys' Higher Secondary School Ganderbal.
2. Girls' Higher Secondary School Ganderbal.
3. Girls' Higher Secondary School Nunar.
4. New Dream Land Educational Institute, Behama Ganderbal.
5. Qamaria Educational Institute, Ganderbal.

The sampling frame is presented below:





**Fig. Sampling Frame**

### **TOOL USED**

For the measurement of Online Game Addiction, the Game addiction scale developed and validated by Jeroem S. Lemmens, Patti M. Valkenburg & Jochen Peter which is comprised of 21 items was used to measure salience, tolerance, mood modification, relapse, withdrawal, conflict, and problems. The responses are scored according to the weightage of never to very often as 0 to 4. In order to measure the aggression level of higher secondary school students, Buss-Perry Aggression Questionnaire (BPAQ) developed by Arnold Buss & Mark Perry in 1992 was used. There are 29 items in BPAQ which are further divided into four dimensions viz physical aggression (9 items), verbal aggression (5 items), anger (8 items) and hostility (8 items) which the respondents rank on a five-point Likert-style

scale, ranging from strongly agree to strongly disagree. The sum of all items is the total score for aggression.

## **ANALYSIS OF DATA**

The data of the present study was analyzed by using Statistical Package for Social Sciences (SPSS) version 22.0. The Statistical Techniques viz Percentage, Mean, Standard Deviation, Test of Significance (t-test) and correlation approach were applied.

### **Objective Wise Data Analysis and Interpretation**

**Objective 1:** To study the online game addiction among higher secondary school students of Education Zone Ganderbal.

The first objective of the present research was to study the online game addiction among higher secondary school students of Education Zone Ganderbal. To achieve this objective data was analyzed and results of which are presented in table 4.1.

**Table 4.1: The level of online game addiction among higher secondary school students is shown as:**

<b>Level</b>	<b>Number of students</b>	<b>Percentage</b>
Low	58	53.70
Moderate	43	39.81
High	7	6.48

The table 4.1 shows the level of online game addiction among higher secondary school students of Education Zone Ganderbal of district Ganderbal. Further, the table shows that the 53.70% students are having low online game

addiction whereas 39.81% students are having moderate online game addiction and 6.48% are having high online game addiction.

**Objective 2:** To compare male and female higher secondary school students of Education Zone Ganderbal on online game addiction.

Another objective of the present study was to compare male and female higher secondary school students on online game addiction. To achieve this objective the data was analyzed which is presented in table 4.2.

**Table 4.2: The Mean difference between male and female higher secondary school students on online game addiction is shown as:**

Variable	Gender	N	Mean	SD	t-value
Game Addiction	Male	64	28.41	14.605	.39 <sup>NS</sup>
	Female	44	29.66	17.390	

<sup>NS</sup>= insignificant

The table 4.2 depicts the mean difference of game addiction with respect to gender among 108 higher secondary school students (64 male students and 44 female students). The said table shows the mean value of game addiction for male and female students as 28.41 and 29.66 respectively. The table further shows the SD for male students as 14.60 and for female students it was 17.39. The t-value was calculated 0.39 which is insignificant. Thus, the two groups do not differ in Game Addiction. Hence, our hypothesis 1 which states that “there is no significant difference between male and female higher secondary school students on online game addiction” stands accepted.

**Objective 3:** To compare government and private higher secondary school students of Education Zone Ganderbal on online game addiction.

In this section an attempt was made to compare students of government and private higher secondary schools of Education Zone Ganderbal on online game addiction. In order to achieve this objective data analysis was done and the outcome of which are presented in table 4.3 below.

**Table 4.3: The Mean Difference between government and private higher secondary school students on Game Addiction is shown as:**

Variable	School type	N	Mean	SD	t-value
Game Addiction	Government	64	30.05	12.280	.90 <sup>NS</sup>
	Private	44	27.27	19.75	

<sup>NS</sup>= insignificant

The table 4.3 depicts the mean difference of government (64) and private (44) higher secondary school students on game addiction. The said table shows that the mean value of government and private higher secondary school students is reported as 30.05 and 27.27 respectively. Further, the table shows the SD for government school students as 12.28 and for private school students it was reported as 19.75. The t-value was calculated as 0.90 which is insignificant.

Hence, the hypothesis 2 which states that “there is no significant difference between government and private higher secondary school students of Education Zone Ganderbal on online game addiction” stands accepted.

**Objective 4:** To study the aggressive behaviour among higher secondary school students of Education Zone Ganderbal.

One of the objectives of this study was to study the aggressive behavior among higher secondary school students of Education Zone Ganderbal. To achieve this objective data was analyzed and the results are presented in the table 4.4 below.

**Table 4.4: The level of aggressive behavior among higher secondary school students is shown as:**

Level	Number of students	Percentage
Low	--	--
Moderate	63	58.33
High	45	41.66

The table 4.4 shows the level of aggressive behaviour among higher secondary school students of Education Zone Ganderbal of district Ganderbal. Further, the table shows that the 58.33% students are having moderate aggressive behavior and 41.66% are having high online game addiction.

**Objective 5:** To compare male and female higher secondary school students of Education Zone Ganderbal on aggressive behaviour.

In this section an attempt was made to compare male and female higher secondary school students of Education Zone Ganderbal on aggressive behavior. In order to achieve this objective data analysis was done and the results are presented in table 4.5 below.

**Table 4.5: The Mean Difference between male and female students on Aggressive Behaviour is shown as:**

Variable	Gender	N	Mean	SD	t-value
Aggressive behavior	Boys	64	94.48	11.59	.18 <sup>NS</sup>
	Girls	44	94.93	12.78	

<sup>NS</sup>= insignificant

The table 4.4 reveals the mean difference of male (64) and female (44) students on aggressive behavior. The said table shows that the mean value of aggression for male and female students is recorded as 94.48 and 94.93 respectively. The table further shows the SD for male is 11.59 and for female it was recorded as 12.78. The t-value was calculated as 0.18 which is found insignificant. Thus, the two groups do not differ in aggressive behavior.

Therefore, our hypothesis 3 which states that “there is no significant difference between male and female higher secondary school students of Education Zone Ganderbal on aggressive behaviour” stands accepted.

**Objective 6:** To compare government and private higher secondary school students of Education Zone Ganderbal on aggressive behaviour.

One of the objectives of the present study was to compare government and private higher secondary school students of Education Zone Ganderbal on aggressive behaviour. To achieve this data analysis was done and the results are presented in table 4.6 below.

**Table 4.6: The Mean Difference between government and private higher secondary school students on Aggressive Behaviour is shown as:**

Variable	School type	N	Mean	SD	t-value
Aggressive Behaviour	Government	64	94.14	10.708	.52 <sup>NS</sup>
	Private	44	95.43	13.800	

<sup>NS</sup>= insignificant

The table 4.6 reveals that the mean difference of government and private higher secondary school students on aggressive behavior. The table shows that the mean value of government and private higher secondary school students is reported as 94.14 and 95.43 respectively. Further, the table shows that the SD for government higher secondary school students is recorded as 10.70 and for private higher secondary school students it was recorded as 13.80. The t-value was calculated as .52 which is found insignificant. Thus, the two groups do not differ in aggressive behaviour.

Therefore, the hypothesis 4 which states that “there is no significant difference between government and private higher secondary school students of Education Zone Ganderbal” stands accepted.

**Objective 7:** To find out the correlation between online game addiction and aggressive behaviour among higher secondary school students of Education Zone Ganderbal.

One of the objectives of the present research work was to find out the correlation between online game addiction and

aggressive behavior among higher secondary school students of Education Zone Ganderbal. To achieve this objective analysis of data was done and results are presented in table 4.7 below.

**Table 4.7: The Correlation between Online Game Addiction and Aggressive behavior among higher secondary School Students is shown as:**

Variable	N	Mean	SD	R
Aggressive Behavior	108	94.67	12.02	<b>0.36**</b>
Online Game Addiction	108	28.92	15.73	

Significant at the 0.01 level (2-tailed)

The table 4.7 delineates the estimation of responses which were used to assess the correlation between online game addiction and aggressive behavior among 108 higher secondary school students. The said table describes the mean score (M), standard deviation (SD) and Correlation (r) among higher secondary school students. The table reflects the mean score of aggression is reported as 94.67 and mean score of game addiction is reported as 28.92. The standard deviation for aggression and game addiction is calculated as 12.02 and 15.73 respectively. The calculated coefficient of correlation between game addiction and aggression of higher secondary school students is 0.36.

Thus, the results of the table reveal that there is a positive correlation between two variables, Online Game Addiction and Aggressive Behavior among Higher Secondary School Students of Education Zone Ganderbal of District Ganderbal which is statistically significant at 0.01 level. Therefore, our Hypothesis No.5 which states that “there is



significant relationship between Online Game Addiction and Aggressive Behavior among higher secondary school students” stands accepted.

## **MAJOR FINDINGS**

After going through different stages of investigation, the investigator has finally arrived at following conclusions:

1. The present study reveals that the 53.70% of higher secondary students are having low online game addiction whereas 39.81% of higher secondary school students are having moderate online game addiction and 6.48% of higher secondary school students are having high online game addiction.
2. The study found that there is no significant difference between male and female higher secondary school students of Education Zone Ganderbal on online game addiction.
3. In this study it was also found that the difference between government and private higher secondary school students of Education Zone Ganderbal on online game addiction is not significant.
4. In the present study it was also concluded that 58.33% of higher secondary school students are having moderate aggressive behaviour and 41.66% of higher secondary school students are having high aggressive behaviour.
5. The present research work also summarized that there is no difference between boys and girls of higher secondary schools of Education Zone Ganderbal on aggressive behaviour.

6. The present study found that there is no significant difference between government and private higher secondary school students of Education Zone Ganderbal on aggressive behaviour.
7. A significant positive correlation was found between two variables, i.e. Online Game Addiction and Aggressive Behaviour.

### **EDUCATIONAL IMPLICATIONS**

Each and every educational research study is focusing on the development of educational system. The results of the study can also be adopted in educational situations. The present study includes some important educational implications which are very important for students, parents, teachers, school administrators and academicians. This study revealed the positive correlation between online game addiction and aggressive behaviour among higher secondary school students which confirms that for better and prosperous society all stakeholders like parents, teachers and policy makers need to be awakened. Parents and teachers need to be extra careful while doing parenting and teaching. Some of the educational implications of this study are as under:

1. Students should not be encouraged to go for online games as it develops aggressive behaviour among students.
2. Teachers should shoulder this responsibility to observe the online activities of their students.
3. Extra co-curricular activities should be included in the curriculum.

4. Educational institutions should establish counselling cells in their premises so that the students who are addicted can overcome these problems.
5. Interesting learning apps should be developed which can keep the students away from online gaming.
6. The negative impact of online game addiction should be discussed in classrooms.

### **SUGGESTIONS FOR FURTHER RESEARCH**

The present research was conducted on higher secondary school students of Education Zone Ganderbal of District Ganderbal of Kashmir valley. This study can be extended also. The following suggestions should be taken into consideration while conducting further research on the same theme:

1. This study can be extended to other education zones of district Ganderbal, other districts of Jammu and Kashmir and to other states as well.
2. The size of the sample for the present study was small and it was taken only from higher secondary schools. In future, the present study can be replicated on the large sample.
3. Comparative study can be conducted in which students of Kashmir, Ladakh and Jammu can also be compared.
4. Further study can be extended to college students, professional and non-professional students, university students.
5. Online game addiction in relation to other variables such as academic achievement, psychological well-being, resilience, poor academic performance and other

factors which are involved in leading an individual to play online games can be studied as well.

6. Other psychological variables can be included in future.

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