

## Relationship of Computer Game Addiction with Loneliness and Aggression Level in Adolescents

Nupur Agarwal<sup>#</sup>, Sonam Sanger<sup>#</sup> and Dr. Nadeem Luqman<sup>^\*</sup>

<sup>#</sup>Student B.Sc (Clinical Psychology)- 3<sup>rd</sup> year, <sup>^</sup>Professor, Amity Institute of Behavioral and Allied Sciences, Amity University Haryana, India

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### Abstract

*In this advanced technology era, computer games have their own impact on the human life. People of all ages enjoy these games and draw an immense pleasure from them. With the advancement in these computer games, the time adolescents devote to these games results in increased level of addiction. The present study is an attempt to investigate the relationship of computer game addiction with loneliness and aggression level in adolescents. The sample consisted of 100 participants and the tools used were Computer Game Addiction Scale (CAS) (Lemmens et al. 2009), UCLA Loneliness Scale (Russell et al. 1978) and Aggression Questionnaire (AQ) (Buss& Perry, 1992). The results reveal that there is no significant relationship between Computer Game Addiction and Loneliness as well as on the Aggression levels in adolescents.*

**Keywords:** Computer Game Addiction, Loneliness, Aggression

### Introduction

As per the increasing popularity among adolescents (11-18) for the computer games, it's very common to develop the addiction towards them. This increasing demand and impulsivity among adolescents for computer games make these programs very challenging and in order to reach the higher level of the game they do everything in their possession. In recent studies it has been found that these computer game addictions attributes toward many behavioural problems such as aggression, anxiety, depression, somatic complaints, social relation, personal adjustment, adaptive behaviour, rules breaking and attention problems. Such behavioural problems is characterized by persistent aggressive behaviour and violating the rights of others. The improved version of computer games and their increasing popularity among the society can play a false emotional role and can negatively affect the mental health of players.

According to studies the statistical data for the male to female is found to be five to one or more than it. In common, it is claimed that girls have less tendencies for aggressive behaviour than boys.

According to Grusser *et al.* (2007) individuals who spend most of their time in playing games, exhibit various symptoms of pathological behaviour such as loss of control, preoccupation, interpersonal conflicts, intrapersonal conflicts and withdrawal. It is yet to be

recognized as an official clinical disorder by American Psychiatric Association.

Gaming addiction is the persistent inability to control excessive gaming habits despite associated social or emotional problems (Lemmens, Valkenburg, & Peter, 2011).

Aggression is known to be an intention to cause and harm or pain to another person. It is motivated by feeling of anger and is intentional in nature. The intention may or may not involve causing pain or harm to another person. Aggression is an observable unplanned behavior which occurs due to stress and lack of impulse control.

"Loneliness is a situation experienced by the individual as one where there is an unpleasant inadmissible lack of certain relationships. This includes situations, in which the number of existing relationships is smaller than is considered desirable or admissible, as well as where the intimacy one wishes for has not been realized" (Gierueld, Tilburg, & Dvkstra, 2006).

One of the study was suggests that around 70% to 90% of American adolescents and youths, 60% to 90% of Finnish youth, and around same proportion of adolescent in other countries have fun with these computer games and the outcomes of a study with 333 male students in third grade of guidance school indicated that students who spend most of their time playing computer games show more tendencies towards the aggressive behavior. Studies conducted around all over the world have suggested that there is a correlation between playing computer games and decreased in rate of social participation.

\*Corresponding author's ORCID ID: 0000-0002-7311-0089

In one of the another study with participant more than 7000 computer game players, around 11.9% of the players meet the researcher's diagnostic criteria for gaming addiction. In addition, some evidential studies show that excessive gaming is associated with aggressive behavior.

The increasing computer game addiction and the related behavioral problems among the adolescents lead to the interpersonal conflicts and the main reason behind these conflicts is aggression that further leads to poor social competence, social isolation and loneliness among the adolescents (Gentile, 2011).

### Literature Review

Recently increased computer game addiction is a concern area for most of the parents as well as for the psychologists and researchers. The increasing game addiction is not the only thing which is being difficult to understand but the other behavioral problem associated with this addiction is something which is the major issue to handle. Behavioral problems like aggression, rule breaking, attention problem, social problem and many more are estimated to be increase in those who are addicted to playing online games.

Kelvin and Keepers in their 1990 research have mentioned that the students who prefer playing computer games more than any other activity are having more behavioral issues than the rest who have opposite preference. Behavioral issues among the school going children was found to be 0.5% to 20% in many different studies which have been conducted over the time period. Now-a-days is also famous as "pathological gaming" or "problematic gaming", American Psychiatric Association has encouraged further more research on game addiction to consider it for including in DSM-5 under the name of "Internet Gaming Disorder" as an official disorder.

In order to find out the relationship between extroversion, emotional instability, differential internet use, and loneliness with 85 participants from the departments of Psychology, an attempt was made by Amichai-Hamburger and Ben-artzi(2003). They aimed to study the relationship between the frequency of internet usage and the loneliness level and anxiety, distress, and emotional liability. The result showed that in comparison to women men's use of internet is not related either to loneliness, neuroticism, or extraversion. However loneliness is significantly related to both neuroticism and the use of social services in the internet in case of women.

Another study which was aimed to understand the reason behind these computer game addictions by adolescents and their game priorities have been conducted by Sherry *et al* (2001). The investigation included 535 adolescents in the age range of 15-20 in the West USA and indicated that 68% of adolescents have been playing these games as their weekly entertainment. The reason among boys for these games was excitement

and the increasing challenges and their will to win these games. Moreover, sports and violent games were the other factors which attracted the boys more.

The relationship of the computer game addiction with aggression and loneliness and other behavioral problems needs further researches as suggested by the American Psychiatric Association. However game addiction does have an impact on the behavioral issues among the players.

### Methodology

#### ○ Sample

The sample was selected based on purposive random sampling method. This consists of 100 college students between the age range of 17-19 years. The age and gender of the participants was asked.

#### ○ Tools Used

The sample was collected by using questionnaire method. The following questionnaires were used to collect the data:

- **Computer Addiction Scale:** This 21 item scale measures adolescent's degree of addiction to computer and video games. This scale showed high reliability with a Cronbach's alpha of .94 in the first sample and .92 in the second sample.
- **UCLA Loneliness Scale:** UCLA is a 20 item scale which was designed to measure the feelings of loneliness as well as feelings of social isolation. Participants rate each item as O (I often feel this way), S (I sometimes feel this way), R (I rarely feel this way) and N (I never feel this way). UCLA Loneliness scale reliability results indicated that the measure was highly reliable, both in terms of internal consistency (coefficient  $\alpha$  ranging from 0.892 to 0.94) and test-retest reliability over a 1 year period ( $r = .73$ ). Convergent validity for the scale was indicated by significant correlations with other measures of loneliness. Construct validity was supported by significant relations with measures of adequacy of the individuals interpersonal relationships, and by correlations between loneliness and measures of health and well being.
- **Aggression Questionnaire:** This test is constructed by Buss & Perry (1992) which comprises of 29 items. The test retest reliability of this questionnaire is 0.78. The aggression questionnaire have moderate to high internal consistencies ranging from .72- .89. This test is highly valid for measuring the level of aggression.

#### ○ Procedure

The permission for the scales was taken and samples were collected by informing the respondents about the aim of the study. The research was administered on the

sample by giving them instructions for all the questionnaires. They were asked to fill the questionnaires as honestly as possible. Confidentiality of the study was emphasized. They were informed that the data will be used for research purpose only.

**Results**

**Table 1** Descriptive Statistics

	N	Mini.	Max.	Mean	Std. Deviation
Total CAS	100	0	71	26.15	15.35
Total UCLA	100	.00	60.00	23.26	11.76
Total AQ	100	37.00	116.00	80.13	15.66
Valid N (list wise)	100				

From the above table it can be seen that the mean value and the standard deviation for CAS is (M= 26.15, Sd=15.35), The mean value and the standard deviation for UCLA is (M=23.26, Sd=11.76), and the mean value and standard deviation for AQ is (M=80.13, Sd=15.66) for the total population i.e. N= 100.

**Table 2** Correlations between the CAS, UCLA & AQ

		Total CAS	Total UCLA	Total AQ
Total CAS	Pearson Correlation	1	.108	-.025
	Sig. (2-tailed)		.284	.804
Total UCLA	Pearson Correlation	.108	1	.236*
	Sig. (2-tailed)	.284		.018
Total AQ	Pearson Correlation	-.025	.236*	1
	Sig. (2-tailed)	.804	.018	

The above table shows the correlation between the chosen variables i.e. computer game addiction, loneliness and the aggression level. From the figures it is found that there is no relationship between the computer game addiction and the loneliness as well as between computer game addiction and the aggression level. But a significant positive correlation (.236) was found between the loneliness and the aggression level which is significant at the 0.05 confidence level.

**Table 3:** Show mean comparison of both genders on CAS (Computer Game Addiction)

Variables	Mean	Std. deviation	t-value(98)
Male CAS	32.86	17.90	3.37
Female CAS	22.54	12.50	

Above table shows the mean comparison of males and females on CAS and from the table it can be seen that the mean value for the males is (M=32.86, Sd=17.90), while for females it is (M=22.54, Sd=12.54). From the values it can be clearly seen that the mean for males is higher than the mean value of the females which is signified by the t value i.e. t(98)= 3.37, p=0.05.

**Table 4:** Show mean comparison of both genders on UCLA Loneliness Scale

Variables	Mean	Std. deviation	t-value(98)
Males UCLA	24.54	14.28	.79
Females UCLA	22.57	12.50	

The above table gives the results of mean comparison between the males and females on UCLA and the values which were found by comparing are like this. The mean value for males is (M=24.54, Sd=14.28), while for females it is (M=22.57, Sd=12.50). If the comparison is to be drawn there is no significant difference between the mean values of male and females which can also be seen clearly from the t-value i.e. t(98)= .79, p= 0.05.

**Table 5:** Show mean comparison of both genders on AQ (Aggression Questionnaire)

Variables	Mean	Std. deviation	t-value(98)
Males AQ	75.05	17.28	-2.43
Females AQ	82.86	14.12	

The given table is the mean comparison between the males and the females on AQ. The results were found to be as the mean value for males is (M=75.05, Sd=17.28), while for females the mean value is (M=82.86, Sd=14.12). from the results it is clear that the mean value for females is much higher than the mean value for the males same is signified by the t-value i.e. t(98)= -2.43, p= 0.05.

**Discussion**

The results of the study shows that there is a negative relationship between the computer game addiction and the aggression level while a positive relation between the aggression level and the loneliness among the population. The reason can be that playing online may channelize there temper and meanwhile reduce their aggression level but on the other hand this aggression is the reason for the loneliness which can be because of the adjustment issues or their preference of sharing and socialization among others. There are various other factors which could possibly be the reason behind these results like the changing society and the psychological state, peer circle of the person and the simplest one, their own curiosity. No relation was found between the computer game addiction and the loneliness. The results of the study suggest that these computer game addictions surely have some effect on the changes psychological state among the adolescent. But other factors cannot be out ruled and needed to be considered for the further study in this field.

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