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Gaming Addiction in Adolescent Boys: The Interplay of Anger Expression, Narcissistic Personality and Social Interaction

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Abstract

The current study was conducted to assess the relationship between online gaming addiction, narcissistic personality, anger expression and social interaction among adolescent boys. Correlational research design was used and the sample was selected through non probability purposive sampling technique. Data was collected from adolescent boys (13-16 years) of five private schools of Lahore. Data was accumulated by using Anger Expression Scale (Shafaqat, 2016), Narcissistic Personality Scale (Ames, Rose, & Anderson, 2006) in Urdu version (Zafar & Kausar, 2016), Social Interaction and Technology Use Questionnaire (Henderson, 2001) in Urdu version (Zafar & Kausar, 2016) and Gaming Addiction Scale (Lemmens, Peter & Valkenburg, 2011) in Urdu version (Zafar & Kausar, 2016). Pearson product-moment correlation revealed that thereis a significant positive relationship between anger expression and gaming addiction (r=.25[**], $p < 0.01$) among young adolescent boys. On the contrary, there exists a non-significant relationship between narcissistic personality and gaming addiction. There is also a significant negative relationship between social interaction and gaming addiction (r= -.10[*], $p < 0.05$).The findings of this research will be helpful in determining the causes of gaming addiction in adolescent boys and to solve this problem among them.

Keywords: anger expression, narcissistic personality, online gaming addiction, social interaction

Introduction

Gaming addiction is a behavioral addiction characterized by playing computer or video games excessively and/or to find it hard to avoid playing games, which interferes with a person's everyday life. Gaming addiction can be understood in terms of playing games compulsively, isolating oneself from others, mood changes and being overwhelmed with achievements in video games. It can also lead to the avoidance of other

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important occasions in life (An, et al., 2014). Online gaming becomes an addiction only due to its easy availability (Cheng & Lam, 2014).

Excess of everything is bad and excessive online gaming may in extreme cases lead to symptoms that are mostly experienced by substance addicts such as mood changes, dire need, and tolerance also studied face book intrusion and depression (Błachnio, Przepiorka, Pantic, 2015). American Psychiatric Association in presented the criterion for video game obsession in the 5thedition of Diagnostic and Statistical Manual; however, it cannot be measured as a diagnosed mental disorder although in a section called "Conditions for Further Study'', the proposed criteria is labelled as "Internet Gaming Disorder" also focused on detecting depression and mental illness on social media (Guntuku, Yaden, Kern, Ungar, Eichstaedt, 2017).

This study also explores the relationship between social interaction and online gaming since socialization is adversely affected by excessive gaming which makes the affected person live in his own world and forget the people around him. Obsessive gaming can lead to a lack of communication between members of family/community since an adolescent is preoccupied with thoughts about achieving the goals of games and can't develop everlasting relationships with others. He remains ignorant about the pattern of interaction with friends, opposite sex and people around him which eventually makes him isolated and he misses all the enjoyments of adolescent life. This attitude of going into isolation due to excessive gaming is a strong precursor of obsession. Finally, adolescents find it easier to remain in their fantasy world rather than to face rejection in the real world. In short, this way of avoiding reality could be stopped only by introducing new and interesting ways to explore the world.

Online video games are designed in such a way to capture the attention of teens for hours till the end (Muusses, Finkenauer, Kerkhof, & Billedo, 2014). According to many previous studies the role of aggression is important in gaming addiction (Tonioni, et al., 2014). Violent games are easily available on the web and when a child often spends time playing these games, he also learns to behave in that particular way as he relates himself with the characters of these video games. A study with Korean

high school students showed that the characteristics of aggression, agitation and impulsivity are mostly seen in students who use internet continuously. These results predict that anger expression is the real cause of the aggressive behavior of the adolescents (Błachnio, Przepiórka, Pantic, 2015).

Narcissistic personality is a type of personality which considers itself as the most important person and doesn't want to understand others. Often, people with NPD have bore childhood trauma or have been brought up in unhealthy families in which the behavior of parents remains the main cause of narcissistic traits. The relationship between narcissism and addiction is that narcissists believe that they can control their surroundings and in the case of gaming addiction, an adolescent has a strong feeling of control in the gaming environment (Iftikhar & Tariq, 2014). One of the most interesting aspects of online games is their system of goals and achievements. As the participants play, the characters excel by taking experience points, advance from one level to the next, collect precious gifts and weapons and thus consider themselves able enough to handle things. Self-absorption and narcissism can also be a precursor of the excessive use of technology. This vicious circle can be understood by describing that the use of media and technology results in gaining positive views and acceptance from others and people who are self-obsessed turn back to online media for admiration. It has been seen that narcissist personalities make a lot of friends through online posts and games to receive positive response from others. The difference between real and online world is that the former allows long lasting relationships based on mutual status, while online relationships are based on actions and drives and commonly most active people are the strongest people in web-based communities (Iqbal, Noor, & Mian, 2014).

People interact with others through online games, especially children and adolescents in the current age. Online games consume most of the time of children and teens due to their strong appeal, time which they should spend with their significant relationships (Yao & Zhong, 2014). Social media enslavement or gaming addiction has become a major problem prevalent in our young teens. Boys in the age of adolescence or even in pre-teens are captivated by social media or online gaming. Hence,

they do not only lose personal interaction with their friends and family but they also lose touch with reality. They start living in their fantasy based world which weakens their real life relationships and affects their personality adversely. Things have gone so far as cases being reported of people losing their lives due to gaming (Lenhart, 2015).

Many researches have been conducted to discover the relationship between these variables and showed a positive and important relation between internet fixation and anxiety level among sampled students and also studied problematic internet use (Kuss & Fernandez, 2016). The outcomes showed that the incidences of using internet are more common among boys than girls. Prediction test showed a positive and important relation between internet fixation and anxiety level among sampled students. Researchers did an examination in China and found that 10.32% of people played neurotic computer games also studied facebook use, social comparison, envy, and depression (Appel, Gerlach, & Crusius, 2016).

Researchers found that according to data web gaming and mobile compulsions areas important as other fixations of personality (Wang, Ho, Chan, & Tse, 2015). Another research study observed the bad impact of computer games on communication and interaction between teens and their family members, relationship between internet addiction and self-esteem and depression was also studied (Bahrainian, Alizadeh, Raeisoon, Gorji, Khazaee, 2014) . Researcher supported the idea that people who have long term relationships within a game may have problematic relationships in the real life. A research study was conducted from a family perspective and proved that children from broken families or those who experience high levels of disagreement within their homes are easy victims of brutal online games as compared to peaceful games, also studied prevalence of internet addiction in medical students (Srijampana, Endreddy, 2014). Research studies suggested in their recent research and theory that the traits of self-absorption, selfishness and self-importance can be the predictive features of violence in adults (Chou, et al., 2015). Another research study also found that young ladies who played a forceful computer game showed more aggressive attitude towards others and also to verify the effect of aggressive video game exposure on violent behavior

(Naseri, Mohamadi, Sayehmiri, & Azizpoor, 2015).

2. Rationale of the Study

According to the latest report of the Entertainment Software Association, 25% of computer and video game players are adolescent boys, with reference to psycho-pathology, it seems to be that addiction has its roots in teenage. Those adolescents who play online games excessively are likely to be overwhelmed by them and get disconnected from reality by using this source as a defense mechanism due to which they are unable to develop effective strategies to cope with problematic life events. Therefore, their psychosocial development may be significantly impaired.

3. Objectives of the Study

- To investigate if online gaming addiction is present in Pakistani youth.
- To find out the relationship of gaming addiction with anger expression, narcissistic personality and social interaction.
- To explore the predictors of online gaming addiction.

4. Hypotheses

It is hypothesized that

- There is a positive relationship of online gaming addiction with narcissistic personality and anger expression.
- Social interaction is negatively correlated with online gaming addiction.
- Narcissistic personality and anger expression are positive predictors of online gaming addiction.
- Social interaction is a negative predictor of online gaming addiction.

5. Method

5.1 Sample

The study sample comprised three hundred (N= 300) adolescent boys of intact families having internet access and chosen from private schools of Lahore within the age range of 13 -16 years, with mean 14.31 and SD 0.87. Purposive sampling technique was used for collecting information. Only those boys were selected who had access to internet and either had

personal laptops or a desktop computer. The criterion of sample selection was the willingness of students as well as their availability for data collection.
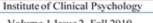
5.2 Measures

5.2.1. Gaming addiction. Gaming fixation was measured with the help of Gaming Addiction Scale (Lemmens et al, 2011) used in Urdu version (translated by Zafar & Kausar, 2016) and developed for adolescents. This scale measures the diverse areas of compulsion in adolescents. It has 7 items measuring the main features of gamers having significant reliability with an alpha value of 0.77. There is one question for each criterion and each question is measured on a 5 point rating scale with values 0(not at all), 1(rarely), 2(sometimes), 3(often), and 4(always). Minimum and maximum score ranges from 0 to 35 respectively with no reverse coding.

5.2.2. Anger expression. Anger expression was measured using Anger Expression Scale developed by Shafaqat (2016). The scale includes 21 items measured on a 5 point rating scale. The test retest reliability was significantly correlated with 0.98 and α =.76.It depicted that the measure is highly reliable. Minimum and maximum score ranges from 0 to 105 respectively with no reverse coding.

5.2.3. Social interaction. Social interaction was measured with the help of Social Interaction and Technology Use Questionnaire developed by Henderson (2001) and validated in Urdu version (Zafar & Kausar, 2016) about the perception of skills and societal communication. The participants had to answer some questions about how (and how much) they use technology and how they perceive social situations. A short version of social interaction measure was used having 6 items. Rating was taken on a scale having 5 options including 0(not at all), 1(rarely), 2(sometimes), 3(often), and 4(always). The scale has good authenticity and reliability having an alpha value of 0.72. Minimum and maximum score ranges from 0 to 30 respectively with no reverse coding.

5.3 Narcissistic Personality

5.3.1. Narcissistic. Personality was measured by using Narcissistic

Personality Inventory-16 (Ames et al., 2006) in Urdu version (Zafar & Kausar, 2016).It is an edited mode of the NPI-40 used for measuring subclinical egotism. The NPI-16 has been shown to have a meaningful face and distinguished inner and predictive accuracy having the values of α =.67 and mean inter-item correlation =.13. The participants choose one item from the pair of items which best describes minimum and maximum score ranges from 0 to 32 respectively with no reverse coding.

5.3.2. Procedure. Research was conducted after the approval of Research Ethics Committee. Information was taken from the sample of 300 adolescent boys (13 to 16 years) studying at different private schools after permission. It was ensured that their identity would not be revealed. A complete series of questionnaires including Gaming Addiction Scale, Anger Expression Scale, Narcissistic Personality Inventory (NPI-16) by and Social Interaction and Technology Use Questionnaire was provided to students to complete them with sincerity and vigilance. After completing data collection, students were admired and appreciated for giving their time and providing help in completing the study. Pearson correlation and multiple linear regression analysis were performed.

6. Results

Results were obtained by using different statistical analysis to find out the existing relationships and predictor variables. Descriptive statistics were applied to compute percentages, frequencies, mean and standard deviation of the demographic information. A positive relationship was found between online gaming addiction and anger expression. Online gaming addiction and social interaction showed an inverse relationship as social interaction decreases when gaming addiction increases in adolescent boys. Multiple linear regression was applied to predict anger expression and social interaction as predictors of online gaming addiction.

Table 1
Demographic Characteristics of the Sample (N=300).

	Characteristics	f(%)	M (SD)
Age	13	55 (18.33)	14.31 (0.87)

	14	122 (0.67)	
	15	97 (32.33)	
	16	26 (8.67)	
Education	8	98 (32.67)	8.89 (0.73)
	9	138 (46)	
	10	64 (21.33)	
School	Beaconhouse	100 (33.33)	
	Pak Turk	52 (17.33)	
	Pride Public school	49 (16.33)	
	Kashmir Academy	43 (14.33)	
	LACAS	56 (18.67)	
Siblings	0	2 (0.67)	
	1	24 (8)	
	2	64 (21.33)	
	3	105 (35)	
	4	74 (24.67)	
	5	14 (4.67)	
	6	10 (3.33)	
	7	1 (0.33)	

	8	3 (1)
	9	1 (0.33)
	10	2 (0.67)
Birth Order	1	107 (35.67)
	2	96 (32)
	3	68 (22.67)
	4	21 (7)
	5	3 (1)
	6	4 (1.33)
	8	1 (0.33)
Living with Parents	With Both	283 (94.33)
	Without Both	4 (1.33)
	With Mother	12 (4)
	With Father	1 (0.33)
Availability of Internet	Yes	284 (94.67)
	No	16 (5.33)
Availability of Gaming PC	Yes	226 (75.33)
	No	74 (24.67)

Play Days	Every Day	91 (30.33)	
	Holiday	209 (69.67)	
Playing Hours	Less than one hr	77 (25.67)	2.20 (1.08)
	2-3 hrs	130 (43.33)	
	4-5 hrs	64 (21.33)	
	More than 6 hrs	29 (9.67)	
Playing time	Day Time	85 (28.33)	2 (0.752)
	Night Time	131 (43.67)	
	Both Time	84 (28)	

Descriptive statistics were used to describe the characteristics of the participants. Table 1 shows the demographic characteristics and information of participants.

Table 2

Pearson Product-moment Correlation between Online Gaming Addiction, Narcissistic Personality, Anger Expression and Social Interaction (N=300)

Variables	1	2	3	4
1- AES	-	.25**	.07	-.12*
2- G.A		-	.09	-.10*
3- NPI			-	-.06
4- SI				-

Note; $p<0.01$** NPI = Narcissistic personality inventory, AES = Anger expression scale GAS= Gaming addiction scale and, SI=Social Interaction.

Correlation analysis was done to identify the strength and the nature of relationship among narcissistic personality, anger expression, social interaction and online gaming addiction. Anger expression has a positive association with gaming addiction r = .25[**], p<0.01. Social interaction has a significant negative association with gaming addiction r = -.10, p<0.05 and anger expression r=-.12,p<.05. While narcissistic personality, gaming addiction, anger expression and social interaction showed insignificant relationships with each other.

Table 3

Linear Regression Analysis for Variable Predicting Online Gaming Addiction in Young Adolescent Boys (N=300).

Predictors	GAS				95% C I	
	B	SE	B	T	LL	U L
NPI	-.03	.04	-.04	-.66	-.11	.05
AES	.11	.02	.25	4.41	.06	.16
R	.25**					
R^2	.06					
F	10.08					

Note: - β=beta coefficient; ** p<0.01; NPI = Narcissistic personality inventory, AES = Anger expression scale and GAS= Gaming addiction scale.

Results indicate that anger expression is a significant positive predictor of online gaming addiction (0.25**, P< 0.01) and narcissistic personality is an insignificant predictor of online gaming addiction (β = -0.03, P<0.01).

Table 4
Linear Regression Analysis for Variable Predictor Online Gaming Addiction in Young Adolescent Boys.

Predictor	Gaming Addiction				95% CI	
	B	SE	B	T	LL	UL
SI	-.29	.16	-.10	-1.80	-.60	.03
R	.10ª					
R²	.01					
F	3.26					

Note:- β=beta coefficient; ** p<0.01;

Results indicate that social interaction is a significant negative predictor of online gaming addiction F (3.26), (β-.10, p<0.01).
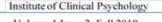
7. Discussion

The aim of this study was to find out the relationship between anger expression, narcissistic personality, lack of social interaction and online gaming addiction in young adolescent boys. The key variables of the study have been studied since so long. Furthermore, this research also attempted to explore the predicting factors of online gaming addiction in adolescent boys.

It was assumed that anger expression and narcissistic personality are positively correlated with online gaming addiction. As video games have become increasingly popular, scientific interest in the effects of online games on individuals has also increased. It has been proved by the researchers that games have an effect on the tendency towards violence and even on decision making, cyber-crime and bullying (Adesina, 2017).

Research study stated that excessive gaming can make an adolescent dependent upon games for communicating with others, may also cause the loss of sleep and other behavioral problems

Another study found that those who play games for a long time have

problematic relationships and also show more aggression towards others. Statistical analysis like Pearson product-moment correlation showed a strong positive relationship between anger expression and online gaming addiction also detects depression and mental illness on social media (Guntuku et al., 2017).

Pearson product-moment correlation rejected the assumed hypothesis by showing an inverse relationship between the variables of interest. Narcissism as a personality trait has been associated with addictions in general and has been widely investigated for behavioral addictions such as exercise dependence (Miller & Mesagno, 2014) and technological addictions such as internet addiction and online gaming addiction.

In a study by correlations demonstrated that substance addicted people have huge narcissistic problems; however, they are more likely to be identified with powerlessness rather than self-importance which is considered as the defining trait of narcissists (Karakoula & Triliva, 2016).

Another hypothesis of the current study was that "there is a negative relationship between online gaming fixation and social interaction". Gamers spend too much time playing games, so their personal relationships suffer badly and even disappear altogether. The hypothesis that social interaction is a significant negative predictor of online gaming addiction is also proved to a significant degree through the findings of our study. Regression analysis was done to find out social interaction as a predictor variable of online gaming addiction. Different researches have supported the lack of social interaction as a negative predictor of online gaming addiction, such as the research exhibited that teens who are addicted to games struggle hard to maintain interpersonal relationships. This was verified that those who have problematic relationships with others are at a higher risk of developing gaming addiction. It suggested that teens who are more interested in forming internet relations experience a high level of anxiety and tension in real life relationships. This was observed more in gaming addicted teens rather than those who play games occasionally and addiction and anxiety among students (Azher, et al., 2014).

It is proved that anger expression and online gaming addiction are

positively correlated. So, we can also hypothesize anger expression as a positive predictor of online gaming addiction. It depicts that teens who are easily irritated and angry are easy victims of gaming addiction. It has been strongly support our hypothesis by revealing that those teens who score high on violence tend to have a high preference for games as enjoyment for a long period of time. It was described that aggressive games are a strong risk factor for violent behavior, aggressive thoughts and other behavioral problems. It was also assumed that narcissistic personality is also a positive predictor of gaming addiction but it did not prove correct. Idea was supported that neuroticism and addiction are inversely related. But other researchers found narcissistic personality as a positive determinant of online gaming addiction. It is suggested that the connection between egotism and gaming compulsion is more complicated and needs to be understood in the context of many other variables, pre fronter lobe and internet addiction (Brand, Young, & Laier, 2014).

8. Limitations

There were some problems and obstacles faced during the current research, such as the scales used to measure anger expression and narcissistic personality were too time taking for students to fill them with their full concentration. Some of the students were not able to complete the questionnaires due to the shortage of time. Since the age range was 13 – 16, so there was an element of carelessness and irresponsibility observed during data collection. Furthermore, some of the schools did not give permission for data collection. So, data was collected informally which really affected the results due to improper instructions given by teachers. The time limit was too short to complete the questionnaire. Hence, every step of the research work was finished in a short time period. Scales like N.P.I and S.I were confusing for children. If there was enough time then these scales would have been developed according to the age of children. One of the limitations was the fake responses of students intended to hide their gaming addiction and narcissistic personality which affected the results badly. The sample consisted of boys only to keep the sample homogeneous, however, in future both genders can be included.

9. Further Directions and Recommendations

Online gaming addiction is a worldwide problem among teens. This

problem has also spread in Pakistan. Most of the literature on internet belongs to the Western countries which does not relate with the Asian culture. So, this problem should be studied across Pakistan with different perspectives to help our teens understand the hazards of gaming addiction. A dire need was felt to generate exclusive information about the dangers of online gaming in schools. Schools should also promote outdoor games among boys to keep them busy and should not allow them spare time for using electronic devices like computers, mobiles and gaming PC's etc. School administration should be instructed by the government to give permission easily for research projects. The aim of the current study was to create awareness and to promote interaction between children and parents as well as other members of the society. The current work suggests parents to keep a constant check on their children to make them avoid long term online friendships and games that become the cause of unjust anger, lack of social interaction and gaming addiction.

10. Implications

In Pakistan, the use of online media is increasing with the passage of time. This study will be helpful in determining the possible causes of online gaming addiction in adolescents. Social interaction is also very important for maintaining healthy relationships in society and gaming addiction leads to the lack of social interaction. Findings of the current research will be helpful in determining the role of anger expression and social interaction in online gaming addiction.

11. Conclusion

It is proved from the current study that there is a significant relationship between anger expression, lack of social interaction and online gaming addiction. An increase in gaming addiction directly corresponds with the increase in anger expression and decreases the social interaction of young adolescent boys. Hence, social interaction was found a significant negative predictor of online gaming addiction. The acquired findings will be helpful to understand the hazards of excessive gaming and to discover constructive ways for the consumption of time for adolescents in order for them to grow up to become responsible citizens of society.

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