Gamers Revealed: Peer Attachment and Family Bonds as Predictors of Adolescent Online Video Gaming Addiction in District Sialkot, Pakistan

Mehwish Khalid*[1], Zonera Khalid Mir[2], Maryam Khalid[3]

Original Article

1. Lecturer, Department of Sociology, Government College Women University Sialkot, Pakistan
Email: mehwish.khalid@gcwus.edu.pk

2. Department of Gender Studies, University of the Punjab, Lahore, Pakistan
Email: zkmir394@gmail.com

3. Army Medical College Rawalpindi, Pakistan
Email: khalidmaryam411@gmail.com

Abstract

Globalization has intertwined technology and online gaming on a large scale in the modern-day world. Excessive video gaming has resulted in developing problems among individuals on a global scale as well as within Pakistan. The current research examined how family bonds and peer relationships impact addiction to online video gaming among male and female adolescents of district Sialkot, Pakistan. A quantitative positivist research design was employed to examine the influence of family bonds and peer attachment in online video gaming among adolescents. There were 370 graduate respondents to the study. For the interpretation of results, Statistical Package for the Social Sciences (SPSS) was used. The outcome indicated a significant relationship between family bonds and online video gaming addiction ($\beta = .242$, $\rho < 0.05$). Furthermore, research showed peer attachment as a significant predictor of online video game addiction ($\beta = .061$, $\rho < 0.05$). The study's results hold significance for the assessment and identification of excessive online video gaming addiction among adolescents as there has been no such research conducted with the current demography before.

Keywords: *Addiction, adolescent, family bonds, online games, peer influence*

1. Introduction

Since the early 1990s, the prevalence of online gaming disorder has piqued the interest of academics. Keepers (1990) reported the first known case of a child diagnosed with obsessive video game playing. Due to the increasing number of such cases around the world, overindulgence in internet and video gaming has been labeled as an addiction or dependence. Both addiction and behavioral addiction share a common attribute, which is the inability to regulate the behavior and continue it despite its negative consequences (Henderson & Zimbardo, 2001). The incorporation of excessive internet usage into individuals' lives has become inevitable. According to Martins et al. (2020) it is estimated that around 75% of adolescents in Europe engage in online activities for up to four hours daily. The number of individuals who are part of multiple groups simultaneously is rising, both in work and social settings. People expand their social networks to make new contacts and connections (Jiang & Zhu, 2022). In the latest development, excessive internet gaming disorder (IGD) has been acknowledged as a potential diagnosis (American Psychiatric Association, 2013). It is defined by constant and tedious utilization of internet gaming activities and persistent communication with other players, resulting in negative clinical outcomes.

Adolescence can be an overwhelming and complex time for young people, regardless of their engagement with the internet. During this phase, individuals undergo self-exploration and identity formation which can prove challenging (Lipka & Brinthaupt,1992). Advertisers of games tend to target young people as they are particularly vulnerable to developing online game addiction (Young, 2009). Recent scientific research has focused on adolescent preoccupation with online game playing (King, Haagsama, Delfabbro, Gradisar & Griffiths, 2013). When it comes to health concerns, family functioning is given primary emphasis (Liu et al., 2017). Furthermore, involvement in gaming is seen as a recreational pursuit, with approximately 3.1 billion people played video games on a global scale, the gaming population consists of 40% of the world population (Lischer et al., 2022). Gender and age are important factors in online gaming addiction (Do & Hong,2020; Müezzin 2015 & Hyun et al., 2015). With majority of studies indicating that men are two to three times more at risk than women (Sasmaz et al., 2014, Lee, Han, Kim & Renshaw, 2013). In addition, older age has been recognized as risk element for internet addiction within the adolescent population (Ahmadi & Saghafi, 2013). Researches on the correlation between parental influence and adolescents' dependence on gaming produce contradictory results. Some suggested that greater levels of parental bonds are associated with reduced levels of online gaming dependence (Kim, Lee & Yoon, 2011), while others Bonnaire, Serehen, and Phan (2019) indicated that parental attitudes about the usage of games and family dynamics are the factors that impact the onset of gaming disorder. According to Throuvala, Janikian, Griffiths, Rennoldson, and Kuss (2019), parental rejection has been identified to be linked with the development of Internet Gaming Disorder solely by way of the intermediary effect of core self-evaluations. When investigating parenting styles in relation to problematic video game usage, three types of parental behavior were studied: active mediation (discussions about internet usage), restrictive mediation (granting approval for specific online applications), and social co-use (sharing or viewing screen together) (Nielsen et al., 2021).

Adolescent's social and emotional growth is greatly influenced by their peer attachments (Schoeps, Mónaco, Cotolí, & Montoya-Castilla, 2020). A peer group comprises of individuals with similar ages, upbringings, and social statuses. Members of a peer group have a strong chance of influencing each other's beliefs and behaviors (Armsden & Greenberg, 1987). Adolescents tend to follow the peer group that accepts them, regardless of the group's activities (Palani & Mani, 2016). Insecure attachment is associated with problems such as behavioral issues, emotional difficulties, and delinquency (McElhaney et al., 2006). Additionally, Colwell, Grady, and Rhaiti, 1995, identified the factors behind adolescents' engagement in computer gaming. The research revealed their inclination towards computer games over friends, preference for virtual bonds, and collaboration experiences, dealing with loneliness, and avoidance of challenges. Prosocial behavior is positively associated with secure attachment (Schoeps, Mónaco, Cotolí, & Montoya-Castilla, 2020). Youngsters who feel isolated may turn to online gaming and social media as a means of escaping real-life interactions (Shorter, Turner, & Mueller-Coyne, 2022). Similar results were found in analyzing the effect of peer influence on gaming habit amid Korean dropout adults (Park, 2021). It is noteworthy that these studies considered variables such as social behavior, self-concept, gender, and parental rearing patterns as a composite picture, not separately. Peers have a momentous influence on adolescents' attitudes and behaviors (Giletta et al., 2021). A notable aspect of peer influence entails adolescents changing their beliefs, attitudes, and actions according to their peers (Kandel, 1996). The main aim of the current study is to examine the association between online game addiction, family bonds, and peer attachment among male and female university students. This study is unique and pioneering, as it has not been previously discussed in the context of the growing online video game addiction among adolescents in the district of Sialkot.

2. Theoretical Framework and Hypothesis Development

There are various theories regarding how social and peer relationships shape individuals' attitudes towards one another. Albert Bandura's Social Learning Theory (1977) posits that observation and modeling are pivotal in process of learning. According to this theory, individuals can acquire knowledge by simply observing the behavior of others, including family members, peers, media, and other sources. When people have higher exposure to the influence of social and peer relationships, they tend to replicate those who have demonstrated positive rewards from the internet and online games.

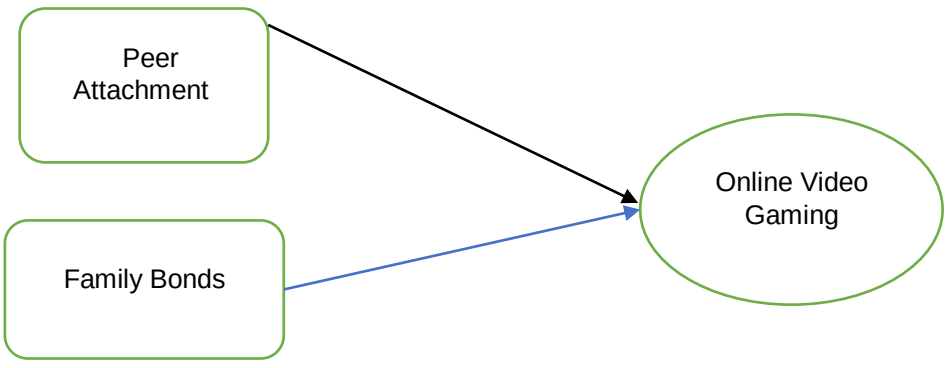
Peer pressure and environmental stresses significantly contribute to adolescents engaging in gaming. Adolescents often become gamers because peers who are also gamers, and family dynamics also contribute to the emergence of online gaming addiction (Young, 2009). Researches indicate that children with parents who struggle with substance abuse are more likely to turn to gaming as a way to cope with a range of challenges, including developmental, academic, health, delinquency, sexual, mental, and familial issues (Yen et al., 2007; Schneider, King, & Delfabbro, 2017). Adolescents' use of electronic media and family functioning correlation has been studied extensively, with a focus on East Asian populations (Koo & Kwon, 2014; Xiuqin et al., 2010). Yet, it is often unclear whether family and gaming factors are actually causally linked. An adolescent may seek social engagement in gaming activities as a result of poor family relationships or extreme gaming, which may eliminate chances for family interaction.

To investigate the issue of peer attachment and family bonds in digital game-playing indulgence, it is essential to examine it from a sociological perspective. Moreover, it is necessary to demonstrate whether peer influence and family bonds contribute in explaining the widespread use of online video games among adolescents.

Two alternative hypotheses were proposed:

1. Alternative Hypothesis H1: Peer attachment and family bonds would predict a significant relationship in online game addiction.
2. Alternative Hypothesis H2: Online game addiction would predict higher in males as compared to females.

Figure 1: Conceptual Framework



3. Methods and Procedures

The current research was conducted using a quantitative research design and in line with prior researches, (Ashraf et al., 2020; Ashraf et al., 2020) a multistage sampling technique was employed to target the respondents of the study. In the first step two universities namely the University of Sialkot and the University of Management and Technology were randomly selected from District Sialkot, Pakistan. Secondly, the respondents were targeted through the convenient sampling technique.

A total of 370 respondents who spent 2 or more hours per day playing video games were included in the research. In line with the recommendations made by Sekran & Bougie (2016), in order to ensure a higher response rate and maintain the accuracy of the responses, the researchers chose a larger sample size over a smaller one as the small sample size could risk the low response rate. Moreover, a larger sample size consistently leads to improved generalization of results (Tabachnick & Fidell, 2011). According to the conventional guideline, it is sensible for the sample size to exceed 30 but remain below 500 in order to be adequate (Roscoe, 1975). All the respondents of the study were priorly informed about the objectives of the research and the discretion of their responses. In the initial stage, a total of 450 survey forms were distributed. During the data cleaning process, the data underwent preliminary coding and identifying outliers in the data set based on extreme deviations. Eventually, a total of 370 questionnaires were completed and found suitable for analysis. Data analysis was conducted utilizing SPSS (Statistical Package for Social Sciences) software. To represent and explain the data, descriptive statistics were used including frequency distribution and percentages. Additionally, to study the connotation between the independent (family bonds and peer attachment) and dependent variables (online video gaming) inferential statistics both regression analysis and T-test were used.

4. Results

Research was conducted using a quantitative research method and analysis is done using SPSS software. The study found a positive correlation between family bonds, peer attachment, and online video gaming. Three types of scales were used in the present research. Peer Pressure Scale (PPS) by Kiran-Esen (2002) was used to measure the peer attachment. Secondly, the Brief Family Relationship Scale (BFRS) by Fok, C.C.T., Allen, J., & Henry, D. (2014) was employed to measure the influence of family bonds on youth. Thirdly, the Internet Gaming Disorder scale (IGDS) was also used to measure problematic internet gaming behavior.

In the present research, 50% of the population were female and 50% were male. The majority of the population was between the ages of 18 and 20.

The descriptive statistics of the respondents are given below:

Table 1: Demographic Statistics of Respondents (N=370)

Sr.	Variables	F(%)
1.	**Age**	
	18-20	214 (57.8%)
	21-23	92 (24.9%)
	24-26	64 (17.3%)
2.	**Gender**	
	Male	185 (50.0%)
	Female	185 (50.0%)
3.	**Living Area**	
	Rural	30 (8.1%)
	Urban	340 (91.9%)
4.	**Level of gaming**	
	As a team player	112 (30.3%)
	As a professional	79 (21.4%)
	As casual	143 (38.60%)
	As amateur player	36 (9.7%)
5.	**Time Consumed on Playing Online**	
	Games	206 (55.7%)
	2-3 Hours	78 (21.1%)
	4-5 Hours	74 (20.0%)
	5-6 Hours	12 (3.2%)
	More than 6 Hours	

The information presented in Table 1 shows the percentage and frequency of the occurrences of the demographic variables. Majority of the sample aged between 18-20 (57.8%). The second demographic variable on the table was gender, with an equal split between males (50.0%) and females (50.0%). The third demographic variable, living area, showed that the highest frequency was in urban areas (91.9%) and the lowest was in rural areas (8.1%). The fourth demographic variable, level of gaming, showed that casual players had the highest frequency (38.6%) and amateur players had the lowest frequency (9.7%). Lastly, the fifth demographic variable indicated the frequency of time consumed playing online games. According to the results, most respondents spent 2-3 hours (55.7%) playing online games. Playing online games for more than 6 hours had the lowest frequency (3.2%).

All respondents were explained about objective of the study and they were assured about confidentiality of responses. Persons who participated in the survey were not given any monetary or non-monetary benefits. In total, 220 questionnaires were administered and 158 of them were returned complete.

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5. T-test Analysis

In order to evaluate the means of two groups and ascertain if a significant difference exists between them, the statistical method T-test is frequently used. This test is particularly useful when you want to ascertain whether the means of two sets of data are different from each other. The findings of the test are typically showed in a table format for easy interpretation.

Table 2: T-test Comparison of Online Video Games Addiction Scores by Gender

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	185		.76747	.05445
Female	2.9581		.77046	.06658
	185			
	3.0136			

Table 2 displays the mean online video game addiction levels for males and females. The mean addiction level for males is 2.9581, while for females it is 3.0136.

5.1. Independent Sample T-test

The independent sample T-test is utilized to compare means of 2 data sets to determine significant differences.

Table 3: Independent sample T-test

Online Gaming	**Sig**	**T**	**df**	**Sig. (2-tailed)**
Equal variance assumed	0.000 5.39	-	368	0.000

Table 3 shows the mean variance in online game addiction between male and female groups. Levene's test (Leven, 1960) indicates that the variance equality is less than 0.05 (0.000>0.05), and the significant two-tailed values are 0.000 ($p<0.05$). This means that there is a statistically significant difference in online video game addiction between male and female respondents. Based on the analysis, it can be concluded that there is a significant difference in online video game addiction between male and female university students.

6. Regression Analysis

To determine the correlation between a dependent variable and one or more independent variables regression analysis a statistical tool was employed. It is commonly used in data analysis to establish and comprehend the relationship between variables. Regression analysis is often used to make predictions or infer the impact of one variable on another variable of interest.

Table:4 Multivariate Analysis

Variable	St. Error	Beta	T	Sig.
Family bounds	.043	.242	4.895	0.000
Peer attachment	.046	.061	5.237	0.001

Table 4 indicates that the significant value (0.000) is less than the required significant value (0.05), which means that H1 is accepted. This infers that a significant relationship between family bonds and online video gaming addiction exists. Family bond has a standard error of (.043), beta value (.242), and T value (4.895). Peer attachment, on the other hand, has a standard error of (.046), beta value (.061), T value (5.237), and a significant value (0.001), which is less than the required significant value of (0.05). Hence, H2 is also accepted. The results show that both independent variables, family bonds and peer attachment, have a significant connection with online video game addiction among adolescents.

7. Discussion & Conclusion

The issue of online game addiction is becoming increasingly concerning, not just in Pakistan but all over the world. This problem can be instigated by a number of factors, such as family dynamics and peer relationships. Moreover, modern teenagers are growing up in a world that is highly dependent on technology, giving them the skills to use it with ease. This makes them more vulnerable to developing an addiction to online games as compared to other age groups (Masya & Candra, 2016).

The objective of this research was to explore the association between online game addiction, family bonds, and peer attachment among male and female university students. The study was guided by the Social Learning Theory (Bandura, 1977), which emphases on how external factors such as family and peer influence individuals. According to the theory, adolescents are influenced by their parents' and peers' behaviors. They may choose to emulate their peers' problematic internet use and digital game indulgence behaviors, especially if these behaviors result in positive rewards. Over time, these activities can gradually develop into addictions. However, addiction does not always manifest solely due to observing and mimicking group behaviors. Factors such as an individual's inclination toward addiction, their knowledge of healthy internet usage, personal experiences, and parental guidance all play significant roles in determining their susceptibility to addiction. Therefore, according to the Social Learning Theory, when an adolescent has a close friend or is part of a group addicted to the internet or gaming, it increases the likelihood that the adolescent may also develop addiction. Conversely, when an adolescent is part of a group with non-addicted individuals, it reduces the likelihood of addiction. To investigate the involvement of family bonds and peer attachment in online gaming indulgence among adults, an empirical literature review was conducted. Over the past decade, there has been an increasing volume of literature on the subject of problematic gaming or internet addiction (Kircaburun, Pontes, Stavropoulos, & Griffiths, 2020). The study had 370 participants from two universities (USKT & UMT) in the Sialkot district of Pakistan, and the convenient sampling technique was used. The majority of the respondents (57.8%) were aged between 18-20. Of the respondents, 38.60% played as casual players and 21.4% played online games as professional players. The majority of the respondents (55.7%) spent 2 to 3 hours playing online video games. According to the study, family

bonds were a major contributor to indulgence in online video gaming, with 51.4% of respondents strongly agreeing on the influence of family. Additionally, peer attachment was found to result in online video game addiction among university students, with 50.4% of respondents agreeing. The literature has also shown that throughout adolescence, the impact of both parents and peers has a significant impact on shaping attitudes and behaviors (Armsden & Greenberg, 1987). Two tests were used in the research: T-test and regression analysis. The T-test showed a noteworthy difference between online game addiction among male and female students, with male students found to be more indulged in online video game addiction than female students. The finding of the current study align with the previous research (Gunuc, 2016). The results of regression analysis predicted that family bonds and peer attachment were involved in youth indulgence towards online games. Previous studies have also indicated that insufficient communication between parents and their children, as well as family disruptions, may have an impact on the development of game addiction (Kim & Kim, 2015). The results of previous studies have also revealed a significant association between peer attachment and online gaming addiction (Silaen & Maranatha, 2023).

8. Recommendations

Internet is proliferating globally, along with the number of its users which has instigated problematic Internet use, such as Internet and addiction to online gaming disorder. In recent technological advancements, this internet gaming phenomenon has become a social concern but the studies done on this issue are not sufficient. The study aimed to explore the impact of family bonds and peer attachment on adolescent online video game addiction. Although the study was conducted only on university students in Sialkot, Pakistan, the findings are significant for understanding the social factors linked to online video game addiction among youngsters. However, the scope of the present research is confined to the university students of the district Sialkot, a more comprehensive study can be conducted on the students coming from various family backgrounds and social classes. The present research lacks data from parents and peers of adolescents; thus, a detailed study is required to better understand the problem. The current generation of adolescents is becoming violent and intolerant due to the influence of aggressive and violent online games. This study aims to raise awareness and guide the design of an effective program to avoid online game addiction among adolescents. Also, the study emphasizes the importance of outdoor game playing to maintain the mental and physical well-being of adolescents and to better deal with such occurrences.

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