ORIGINAL ARTICLE

Relationship Between Internet Gaming Disorder and Emotional Intelligence Among Male Adolescents

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ABSTRACT

Objective: To assess the relationship between internet gaming disorder and emotional intelligence among male adolescents.

Study Design: A cross-sectional and correlational study.

Place and Duration of Study: The Study was carried out at the Department of Clinical Psychology of Shifa Tameer-e-Millat University, Islamabad, Pakistan from January 2021 to October, 2021.

Materials and Methods: A targeted population was 500 Male with age of 12 to 18 years were gathered from government and private schools and colleges of Islamabad and Rawalpindi. Three questionnaires and demographic proformas were used to obtain data about background information, internet gaming disorder and emotional intelligence. SPSS software 23 version was used to analyse data.

Results: A negative relationship between internet gaming disorder and emotional intelligence among adolescents (r=-.149**, p<0.01). We found internet gaming addiction had a negative effect on emotional intelligence. The results showed that excess involvement on online games caused a variance of 2% in internet gaming disorder in adolescents.

Conclusion: Adolescents who spend more time playing online games have internet gaming disorders which affect their emotional intelligence of them. These findings may help in the formulation of a policy for the efficient use of the internet and may develop awareness programs to educate parents about the detrimental use of internet games, can recognize and formulate intervention plans for adolescents with Internet Gaming Disorder and have low Emotional Intelligence.

Keywords: *Adolescents, Emotional Intelligence, Gamers, Internet Gaming Disorder, Male*.

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Introduction

In the modern era, technology usage is on the rise which facilitates people to update knowledge, entertainment, and communication and has become a potential concern for our youth. Using technology standard of living has improved, has reduced communication distance and provides a variety of alternatives. However, despite its benefits, their excessive usage has become an obsession in our population.[1] Nowadays people's daily lives are becoming more dependent on the internet for social networking, communication, education, online purchasing, business transactions, entertainment, and various other uses. For the previous two decades' internet gaming is dominating the daily life of adolescents and it found that adolescents spend more than 8 hours of the day in playing games which affect not only their family dynamic but also their academic functioning. Few systematic reviews explored the risk factors behind the onset of internet gaming and found that personality traits are causing factors of this addiction in adolescents.[2] Still studies are being conducted to see the link between other personality theories with IGD. In addition, male adolescents who are high on their emotional turmoil use gaming as an escaping activity to deal with

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psychosocial issues.[3] The present intended to investigate the direct relationship between the emotional intelligence and internet gaming disorder. Emotional intelligence is a constellation of emotion recognition (identifying emotions of others and self, self-control (emotion regulation, impulse control) and sociability (social awareness, management of emotion).[4] Adolescents with low emotions are more vulnerable to experiencing psychosocial issues and these individuals to cope with the stress move towards the excessive use of online games.[5]

In addition, a study conducted in China found a drastic negative connection between self-management of emotion with online gaming addiction among the adolescent population.[6] A study was conducted with adolescents who use mindful awareness to investigate the emotional intelligence relation with online gaming and they found that excessive time spent on internet gaming does not effect individuals' capability to identify, recognize and control emotions of others and self.[7]

The number of Internet users has risen dramatically during the last decade because parents are busy with their jobs or in-home chores, so they are unable to spend quality time with their children. When parents don't engage adolescents with themselves, then they spend time with their peers on online gaming. They are unable to learn about identification, assessing, and monitoring emotions of self and others. This study was conducted to determine how online gaming disorder affects Emotional Intelligence and how much the targeted adolescent population in Pakistan is affected by internet gaming disorder.

Materials and Methods

A sample of 500 male students was selected using the purposive sampling approach**.** Purposive sampling enables us to squeeze a lot of the information out of the data we collected from different schools and colleges of Rawalpindi and Islamabad. The age range of adolescents was 12 to 18 years.

Initially, the study was approved by the department's ethical committee and issued a certificate to start data collection. Afterwards, the school authority was approached to get permission for data collection. The school data were collected from 500 male adolescents from government schools of Islamabad and Rawalpindi, with formal permission from the authority of the principal. The purpose of the study was explained the and concept of confidentiality was shared. Informed consent was taken from participants. The background information including age, qualification, family system, grade and spending hours on the internet were collected with help of a demographic proformas. Questionnaires to measure Internet Gaming Disorder and Emotional Intelligence were given to participants. Participants took 15 to 20 minutes to complete the questionnaires. They were acknowledged for their cooperation.

Instruments

Internet Gaming Disorder Scale- Short Form

It examines excessive engagement on online games over a 12-month period. It comprises nine scales, rated on a 5-point Likert scale, 1 for never and 5 for very often. Higher scores indicate a more serious gaming issue. The total score ranges from 9 to 45, with higher numbers indicating a more serious gaming issue.[8]

The Emotional Intelligence Scale of Wong and Law

This test assesses the individual's capability to identify, recognize, and monitor the emotions of self and others. It has four subscales: Appraisal of Self-emotions and others, Use of Emotion, and Regulation of emotions are the four subscales. The responses range from Strongly Disagree (7) to Strongly Agree (7) on a 7-point Likert scale (7). Better scores suggest a higher level of emotional intelligence, whereas lower scores indicate a lack of emotional intelligence. The scale has been found to be a reliable, discriminant, factorial, convergent, predictive validity, and reliable scale to evaluate self-reported emotional examination and control in preliminary psychometric evaluations. The alpha coefficients were .82.[9]

Statistical Analysis

SPSS-23 was used for data analysis purposes; correlation analysis was used to check the relationship between Internet Gaming Disorder and Emotional Intelligence and linear regression to check how a much low level of Emotional Intelligence predicts Internet Gaming Disorder among adolescents.

Results

For the main study, data was collected from 500 male adolescents, age of 12 to 18 years from different

schools in Islamabad and Rawalpindi.

Sociodemographic Characteristics

Table 1: Sociodemographic Characteristics of Adolescents (N=500)

Characteristics	*f*	%
Age		
Early adolescents	12	2.4
Middle adolescents	185	37.0
Late adolescents	303	60.0
Grade		
High school	55	11.0
Matriculation	239	47.8
Intermediate	206	41.2
Family system		
Nuclear	331	66.2
Joint	169	33.8
Spending hours on internet gaming		
Below average(1-4hr)	307	61.4
Average (5-7hr)	56	11.2
Above average (7hr above)	137	27.4

Table 1 showed that the majority of the population sample (60%) *f*=303 was from late adolescents, 185(37%) were from middle adolescents, and one-third population sample (2.4%) 12 was between the age range of early adolescents. The majority *f*=239 of the participants were in matriculation, two third population (41.2%) *f*=206 was from the intermediate level and one-third population (11%) *f*= 55 was from high school level. Out of the total population, 331 adolescents were from the nuclear family system and 169 (33.8%) were living with joint families. The Spending Hours on internet gaming were also checked which were categorised into below average (1-4 hr), average (5-7 hr) and above average (7 hr above). The results showed that most of the male adolescents spend less than four hours on offline games on the internet, 137 males spend more than 7 hours of the day on internet gaming.

Psychometric Properties for Scales

The results of the reliability analysis of measures are given below:

Table 2: Mean, standard deviation, alpha coefficient, minimum and maximum values for Internet Gaming Disorder Scale-Short Form and The Wong and Law Emotional Intelligence Scale (N=500)

Scales	No. of Items	M	SD	Range	Cronbach's a
IGD	9	20.71	8.749	9-43	.873
WLEIS	16	67.47	14.784	0-131	.786

Note: IGD= Internet Gaming Disorder, WLEIS= The Wong and Law Emotional Intelligence Scale

Table no 2 shows psychometric properties and descriptive measures. The Cronbach's alpha reliability of Internet gaming disorder scale- short form, Wong and Law Emotional Intelligence Scale were α=.873 and a=.786 respectively, which indicated that the measures were highly consistent in measuring Internet Gaming Disorder and Emotional Intelligence among adolescents.

Relationship between Internet Gaming Disorder and Emotional Intelligence

Adolescents with internet gaming disorder have low levels of emotional intelligence. Pearson Product Correlation was used to measure the relationship between internet gaming disorder and emotional intelligence.

Table 3: Descriptive Statistics and Correlations between Internet Gaming Disorder and Emotional Intelligence among Adolescents (N=500)

Scale	M	SD	1	2
IGD Total	20.7060	8.74875	1	-. 149**
WLEIS Total	67.4740	14.78399	-.149**	1

Note: IGD= Internet Gaming Disorder, WLEIS= Wong and Law Emotional Intelligence Scale,
M= Mean, SD= Standard Deviation, p<0.001

Table 3 depicted inverse relations between Internet Gaming Disorder and Emotional Intelligence (r=-.149** <0.01). It showed that adolescents who play more internet games have a low ability to assess the emotions of others and express and regulate their emotions.

Emotional Intelligence Predicts Internet Gaming Disorder

The predictive role of Emotional Intelligence in internet gaming disorder was measured with regression analysis.

Table 4: Linear regression analysis was used between Emotional Intelligence and Internet Gaming among adolescents (N=500)

Predictor	B	B	R	Fit
WLEIS	-.088	-.149	.022	F=11.352, *p*<0.01

Note: WLEIS= The Wong and Law Emotional Intelligence Scale

Internet Gaming Disorder and Emotional Intelligence in Male AdolescentsTable 4 showed a substantial regression comparison, F (1, 498) = 11.352, p is .001 (*p*<0.05) with R square .022. It depicted that emotional intelligence is playing a 2% variance in internet gaming disorder.

Discussion

The present study was conducted to inspect the association between Internet Gaming Disorder and Emotional Intelligence among young adolescents. For the first hypothesis, correlation analysis was conducted to check the relationship between internet gaming disorder and emotional intelligence. Variables (Internet Gaming Disorder and Emotional Intelligence) were significantly co-related (r= -.210 **<0.00). Online gamers are obsessed with the game and ignore various other vital daily tasks.[10] Because of the too much amount of time consumed playing online and offline video games, online gaming frequently interferes with the execution of their familial, social, and academic commitments, thus compromising the quality of life. If they are forced to quit, they may show indications of rage, anxiety, or withdrawal.[11]

The effect of internet gaming on emotional intelligence and found the inverse relation. Furthermore, those who avoid dealing with their actual emotions acquire internet gaming problems. With this in mind, it was predicted that internet gaming would have a negative influence on adolescents' emotional intelligence. The findings of the current study showed that internet gaming exhibited a statistically significant negative association with emotional intelligence among young adolescents. Emotional intelligence was poorer in adolescents who played online games.[12]

For the second hypothesis linear regression analysis was conducted. The results of the regression analysis showed that R was statistically significant and explained 2% of the variance in the baseline model; Emotional Intelligence was revealed to be a significant predictor of Internet Gaming Disorder, and a significant regression equation was found, F (1, 498) = 11.352, p is .001 (p<0.05) with R square .022. Low levels of Emotional intelligence are a significant predictor of dependency linked with addictive behaviours such as online gaming and Internet use. People with poor interpersonal skills spend more time engaging in addictive activities and do not acquire age-appropriate interpersonal skills as a result.

The negative consequences of excessive Internet usage include neglecting obligations and damaging relationships, sleeplessness, cravings, loneliness, avoiding everyday life tasks and social isolation.[13] Despite the fact that the current study's results cannot be assumed to be causative due to the study's non-experimental approach, they do corroborate previous research. Because excessive Internet use diminishes social interaction, face-to-face conversation, and time spent with friends and family, users' quality of life may suffer due to problematic Internet use. Furthermore, excessive usage of the Internet may lead to disregard of obligations at school and at home.[14]

Excessive internet gaming is an emerging societal issue that is being contested globally due to its significant impact on people's psychological health. The research of internet gaming disorder is quickly developing, despite the absence of formal acknowledgement as a distinct behavioural condition. However, the diagnostic criteria are still up for discussion.[15] Because of these considerations, it is vital for researchers to do research in this field. The relationship between emotional intelligence and internet gaming has also been studied in the past.[16]

Lack of parent-child connection, which was connected to an increase in Internet Gaming Disorder.[17] Among the related discoveries were: Internet gamers (a) spent less time socialising with caregivers, (b) reported more parental antagonism and less parental affection,[18] (c) reported poorer parenting and a worse home atmosphere than non-gamers.[19] Adolescents from single-parent and mixed homes were more likely than those from two-parent families to report problem gaming.[20] On the other hand, no indication of a relationship between parental marital status and Internet Gaming Disorder was found Living in private housing, which designated the highest degree of socioeconomic class, was shown to be inversely related to symptoms of Internet Gaming Disorder but research showed no relationship between socioeconomic status and Internet Gaming Disorder.[21]

The findings of this study also reveal that the Internet gaming problem was associated with poor levels of emotional intelligence in teenagers. In this study, emotional expression was examined by assessing how individuals communicated their sentiments to others through verbal or nonverbal channels.

Gamers who were formerly socially uncomfortable, isolated, and insecure may become socially confident and connected to others in the game.[22] In this study, the levels of Emotional Intelligence in high-risk online gaming players were lower than those in regular users. Lower emotional intelligence levels were associated with greater levels of internalizing behaviours such as sadness and anxiety. As a result, Emotional Intelligence training is required to aid high-risk online gaming users in detecting and managing their emotions. Self-awareness, self-motivation, mood regulation, and interpersonal interactions have all been demonstrated to improve when using Emotional Intelligence training programs.[23]

Conclusion

It has been found that internet gaming has become more common in adolescents that is the time of emotional development as well. Excessive engagement in gaming via online affect their capability to identify or assess emotions. Many features were revealed as significantly contributing to the development of Internet Gaming Disorder (IGD) among each gaming group; however, demographic factors like age, birth order, number of siblings, and family structure were not found to be associated with IGD in any of the groups.

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