

ORIGINAL ARTICLE

IMPACT OF INTERNET GAMING DISORDER ON SELF-EFFICACY AND SELF-DOUBT AMONG UNIVERSITY STUDENTS

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Background: Increase in internet gaming disorder among adolescents is causing various psychological problems which leads to different cognitive distortions. The current study was planned to investigate the impact of internet gaming disorder on self-efficacy and self-doubt among university students.

Methods: The sample of 300 students was collected through purposive sampling technique, from different universities of Islamabad and Rawalpindi. Self-report measures, i.e., Internet Gaming Disorder Scale-short Form, General Self-Efficacy Scale, and Causal Uncertainty Scale were administered. The data was analyzed through SPSS finding frequencies and using *t*-test and Regression. **Results:** Prevalence showed that internet gaming disorder was found to be more in young adults, undergraduate 127 (42.3%), graduate 143 (47.7%), and postgraduate 30 (10.0%). Males reported high levels of internet gaming disorder (23.91 ± 5.14) as compared to females (18.96 ± 5.47). Males showed more self-doubt (46.83 ± 11.36) than females (41.86 ± 10.41), while females showed more self-efficacy (28.77 ± 5.30) than males (27.38 ± 4.84). **Conclusion:** There is a significant difference between males and females in terms of internet gaming disorder, self-efficacy and self-doubt. Males have more internet gaming disorder and self-doubt than females. Females have more self-efficacy than males.

Keywords: Internet gaming disorder, self-efficacy, self-doubt, university students

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INTRODUCTION

During the last decade, the occurrence of internet has enlarged totally. It has been reported that its usage has been increased about 239% in the developed countries.¹ A classified sample of students with the estimate of prevalence ranging as of 0.3% in USA² to 18.3% in Great Britain³. However, in Pakistan among the sample of university students the estimate of prevalence range to 50.8% whom have either developed or at risk of developing internet gaming disorder.⁴ Research based on addiction of internet is still in its initial stages, researchers suggest that the internet addiction disorder and video gaming disorder should be considered and treated as two different units as internet addiction disorder is wide-ranging (i.e., it can indicate different behaviours that are potentially online) whereas, video gaming can be divided to both online and offline games.^{5,6} Pathological gaming can be described as a constant, frequent, and extreme involvement with video games or computer gaming that are failed to be controlled, regardless of the problem associated with it.⁷

People are reported to play games for diverse reasons as for teenagers, computer gaming is considered to be one of the most popular type of entertainment.⁸ The unnecessary internet usage or internet gaming may lead individuals toward symptoms pertaining problems as well as addiction.⁹ For people with possible addiction of internet usage or internet gaming, causes physiological symptoms consisting psychosomatic problems, physiological dysfunction and destabilized immunity, whereas the psychological symptoms with maximum notable features may consist of anxiety and depression

can occur.^{10,11} As argued by some researchers that playing computer games can be stated as a behaviour that bear a resemblance to substance dependence and pathological gambling.¹² The growing section of multiplayer games of internet activity and following of said games range beyond 47 million.¹³ As stated that 20 million people are estimated who play across the world massively online role playing multiplayer games among them 10 million play World of War Craft.¹⁴ Massive multi online role playing game (MMORPG) players expose a high rate (27.5%) of internet gaming disorder.¹⁵ Furthermore, across-national European survey consisting of seven countries recorded the prevalence data: in Spain 0.6%, Netherlands 1%, Romania 1.3%, Germany 1.6%, Iceland 1.8%, Poland 2%, and in Greece 2.5%.¹⁶ Model of generalized problematic internet use, containing two main subtypes of maladaptive cognitions consist of: thoughts about the self and thoughts about the world.¹⁷ Thus the maladaptive cognitions of thoughts about the self-include low self-efficacy, self-doubt, and negative self-appraisal.

Efficacy beliefs persuade how people act, feel, think and motivate themselves.¹⁸ It has been proved that self-efficacy is connected to the level of gaming addiction.¹⁹ Relating this to gaming addiction, online gaming self-efficacy was accounted towards optimistic relation with addiction to gaming while offline life self-efficacy is pessimistically associated with addiction. Individuals who suffer from gaming dependency tend to show a higher level of self-efficacy in computer-generated world consequent from services and ease of the computer-generated environment which provides

better fulfilling atmosphere with regards to relations in internet. Thus people possessing high level of online gaming self-efficacy may become addicted to gaming instead of those having low level of gaming self-efficacy.²⁰ Self-doubt takes place when persons are doubtful regarding their degree of competency or capability.²¹ Those who tend to possess higher efficacy imagine successful circumstances which provide them optimistic leads and support for performance. Individuals having doubt in self-efficacy think about failure situations and various things that maybe wrong. It is problematic to accomplish more when fighting with self-doubt.²²

Entertainment Software Association has observed that males altogether build up 60% of the gaming population.²³ Age and gender are essential factors of computer game addiction (GCA), computer game usage time (CGUT), and choice of genres.²⁴ Male adolescents specifically are expected to play more games increasingly and are more addicted towards pathological gaming as compared with adolescent girls.²⁵ Those individuals with higher self-efficacy displays phenomenal determination when it comes to dealing with any kind of task they experience than those with low level of self-efficacy as their hard work are imposed with doubts about oneself and grieve from severe give up.²⁶

It is concluded that in case of Pakistan, different life domains of students are affected due to excessive use of internet such as education, physical health, psychological health, and social relationships.²⁷ However, focusing on how internet gaming could affect life self-efficacy negatively causing self-doubt among individuals has never been explored previously in Pakistan. Thus, the current study focuses to accomplish the gap in earlier research studies determining the occurrence of internet gaming disorder in Pakistan. Results of this study can be used by psychologist and medical professionals to develop better intervention plans in order to overcome this ongoing increasing issue of internet gaming disorder among university students.

METHODOLOGY

The present study used quantitative approach and cross-sectional research design was used. Data collection was done through purposive sampling technique by using the self-report measures. The data for the current study was collected from different government/private universities of Rawalpindi and Islamabad. The sample was comprised of 300 university students (male=150, female=150) enrolled at different universities. Only those participants were included in this research who was involved in playing games both online/offline.

Three instruments were used in this study which included Internet Gaming Disorder Scale-short form (IGDS-SF) consisting of 9 items and are answered

using a 5-point Likert scale. General Self-Efficacy Scale (GSES) containing 10 items and marked on a 4-point Likert scale, while the Causal Uncertainty Scale (CUS) containing 14 items and marked on a 6-point Likert scale. Participants were approached at their homes or universities and were informed about the research study. Only those students were included in the study who showed willingness to participate and signed the informed consent form before the administration of the item booklet. Permission to use these scales was taken from their respective authors. The SPSS-23 was used to analyze data of main study by using descriptive statistics. Frequency was used to find out prevalence. Regression analysis was used to infer causal relationships between the variables. To find out mean differences across demographic variables independent sample *t*-test was applied.

RESULTS

There were 300 university students (male=150, female=150) selected which the age range from 18–35 years. Table-1 indicates the frequency and percentage of internet gaming disorder of undergraduate 127 (42.3%), graduate 143 (47.7%), and postgraduate 30 (10.0%) males and females.

The comparison of internet gaming disorder between male and female along with *p*-value and confidence interval also shows that internet gaming disorder is more in males (23.91±5.14) as compared to females (18.96±5.47). The level of self-efficacy between males and females and shows that self-efficacy is found to be more in females (28.77±5.30) as compare with males (27.38±4.84). While comparison of self-doubt between male and female along with *p*-value and effect size, and shows that self-doubt is found to be more in males (46.83±11.36) than females (41.86±10.41). (Table-2)

Table-1: Frequencies of internet gaming disorder across education of male and female (n=300)

Education Level	Number	Percentage
Undergraduate	127	42.3
Graduate	143	47.7
Postgraduate	30	10.0

Table-2: Comparison of internet gaming disorder, self-efficacy and self-doubt between male and female (n=300)

Groups	Mean±SD	95% CI	<i>p</i>	Cohen's d
Gaming disorder				
Male (n=150)	23.91±5.14	3.74–6.15	0.00	0.13
Female (n=150)	18.96±5.47			
Self-efficacy				
Male (n=150)	27.38±4.84	-2.5–0.22	0.01	0.27
Female (n=150)	28.77±5.30			
Self-doubt				
Male (n=150)	46.83±11.36	2.50–7.45	0.00	0.45
Female (n=150)	41.86±10.41			

DISCUSSION

The present study was designed to study the impact of internet gaming disorder on self-efficacy and self-doubt among university students. Findings showed the prevalence of internet gaming disorder across education of male and female. Results yielded that graduate and undergraduate males and females are more addicted to internet gaming as compared to postgraduate which shows that internet gaming is found more in young adults. A previous study also showed a classified sample of students with the estimate of prevalence ranging as of 0.3% in USA² to 18.3% in Great Britain³.

Findings through *t*-test analysis indicate that there is a significant difference between male and female in terms of internet gaming disorder, self-efficacy and self-doubt. Results on the comparison of internet gaming disorder between male and female showed a significance difference as males have more internet gaming disorder as compared to females. Previous studies also showed that gender differences were observed when investigated pathological games which concluded that males are more expected to show sign of pathological gaming as compared to females.²⁵

Results on self-efficacy comparison among male and female addicted to internet gaming disorder showed that females have more self-efficacy than males. A study suggested that women may be able to be more strongly influenced by self-efficacy than men which showed that male have less self-efficacy as compared with females.²⁸ Whereas the comparison of self-doubt among male and female showed that males have more self-doubt as compared to females. Previous studies showed that women are likely to place more personal value on effort and view effort as more important than capability or more culturally valued than do men, for men, the costs of effort may be more troublesome, since they do not share this value as much and their abilities are drawn in to question in the occurrence of high effort. Thus it is easier to lay most important self-doubt among men, particularly after they accomplish a task that required them to apply a good deal of effort.²⁹

The results suggest that males and females have significant differences in the levels of internet gaming disorder, self-efficacy and self-doubt. Thus we can generate the hypothesis that males are addicted to internet gaming more than females and males have more self-doubt as compared to females. Also we can hypothesize that males have less self-efficacy as compared to females. However the sample of present study was only collected from Rawalpindi and Islamabad which includes mostly university students of limited age group who are well educated which are not the true representatives of the whole culture. It would be more appropriate to select the sample from other cities of Pakistan considering other age groups. Also the

sample selection was done through purposive sampling technique thus future studies should also use random sampling in order to get true representation of the sample. This study used only self-reported information for analysis which can be biased thus interview method can also be used to get more complete and comprehensive representation of the phenomena.

CONCLUSION

There is a significant difference between males and females in terms of internet gaming disorder, self-efficacy and self-doubt. Males have more internet gaming disorder and self-doubt than females. Females have more self-efficacy than males.

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