A Study of Internet Gaming Disorder among Adolescents and It's Corelation with Age and Gender

Sidra Arshad[1], Rashida Begum[2]

[1]Paediatrics occupational Therapist, Mom's Belief, Noida, U.P, India, [2]Associate Professor Jamia Hamdard, Delhi,India

Abstract

Background: To corelate internet gaming disorder with gender and age**.**

Objective: To study internet gaming disorder among adolescents and find it's correlation with age and gender**.**

Materials and Methods: A correlational design was used. The study was conducted with 100adolescents 50 males and 50 females each. 100 adolescents were selected based on the inclusion criteria written consent from children and their parents were taken. Subject demographic data wastaken,and Internet Gaming Disorder Scale-20 was used to measure internet gaming disorder.

Results: The findings of corelation between IGD-20 scores and gender shows that Males significantly showed higher associated with higher scores in Internet Gaming Disorder Scale- 20(r=0.742) and corelation between IGD-20 scores and age indicate that the respondent's scores of Internet Gaming Disorder scale with Age shows no significant relationship. (r=-.017).

Conclusion: The study concluded that among sample population 4% came under the likely disorder of internet gaming according to internet gaming disorder scale (IGD-20). It demonstrates that Males significantly showed higher association with higher scores in Internet Gaming Disorder Scale- 20 and scores of Internet Gaming Disorder scale with Age shows no significant relationship.

Key Words: *Internet gaming, Internet gaming disorder scale, Adolescents, Gaming.*

Introduction

The present study aimed to correlate internet gaming disorder with age and gender among Indian adolescents. The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), describes gaming disorder (GD) (mentioned as Internet GD) as a persistent and recurrent pattern of playing digital games be it online or offline, leading to a clinically significant distress.[1]. The field of technology has advanced including the gaming industry; the advent of high-tech handheld gaming devices such as smartphones, gaming consoles, or tablets; and the increased penetration of the Internet that is accessible at an increasingly affordable price have made gaming more engaging, attractive, accessible, and affordable. [2] Although gaming is a harmless leisure activity for most players, at least a subset of them experiences one of the more adverse consequences consequent to

Correspondence author-
Ms Sidra Arshad
MOT(Pediatrics), Jamia Hamdard
Dept. of rehabilitation sciences, jamiahamdard New delhi- 110062 Phone no. 7503552143
Email address- sidraarshad13579@gmail.com

engagement in this behavior.

Despite Internet gaming disorder's name IGD doesn't require that the individual exhibit symptoms of addiction only with online video games. Problematic use can occur in both offline and online settings, [3] although reports of video game "addiction" often involve online games such as Massively Multiplayer Online Role-Playing Games.

The published literature has documented physical, psychological, social, and work-related problems such as disturbed sleep pattern, dehydration, pressure sores, increased irritability, and aggression, depressive and/or anxiety symptoms, poor academic performance, and fails to care for interpersonal relationships and work-related commitments among persons with problematic gaming [4] .

In part due to differences in assessment, preponderance estimates of IGD separate considerably across studies, especially in adolescents. In representative studies, rates of IGD among adolescents range from 1.7 to 8.5% [5-7], although one review suggests that truly addictive use (versus not just excessive play patterns) appears to be present in 2–5% of youth [5,7].

Between March 2017 and July 2018, a cross-sectional study was performed. The frequency of online video game addiction was determined to be 73.9 percent in this survey of 575 teenagers. Adolescents who were hooked to online video games played for 7 hours per day, or 20 hours per week on their mobile phones. [8,9]

Definitive conclusions about the efficacy of any one approach or set of combined approaches or their comparative effectiveness cannot yet be made because of the lack of randomized, controlled research.

EXPERIMENTAL HYPOTHESIS

HA1- there is a corelation between internet gaming disorder score and gender.

HA2 - there is a corelation between internet gaming disorder score and age.

Null Hypothesis

H01: there is no corelation between internet gaming disorder score and gender.

H02: there is no corelation between internet gaming disorder score and age

Methodology

TYPE OF STUDY: correlational study design

SAMPLE SIZE: A minimum of 100 subjects were selected for the study based on inclusion & exclusion criteria

SAMPLING DESIGN: Convenient Sampling

VARIABLES

· INTERNET GAMING DISORDER scale score

· Gender

· Age

Inclusion Criteria

· Participants in the age group11-18 years of age.

· Not have any physical disability.

· Participants having internet access.

· Participants having personal multimedia devices

Exclusioncriteria

· Adolescents with any neurobehavioral or psychiatric conditions.

· Participants not having internet connectivity

Outcome Measures

1. Semi-structured tool
2. The Internet gaming disorder scale[22-24]

Procedure

Sample size of 100 participants was selected for the study,50 males and 50 females. Informed consent from guardians/participants was taken. Subjects were screened to rule out the inclusion and exclusion criteria and Subject demographic data and gaming usage variables, namely duration, devices used, time spent on gaming, and similar other variables was taken via semi structured tool. Subjects were then divided into 2 groups having 25 females and 25 males each:

- Early adolescents(11-14yrs),
- Late adolescents(15-18yrs).

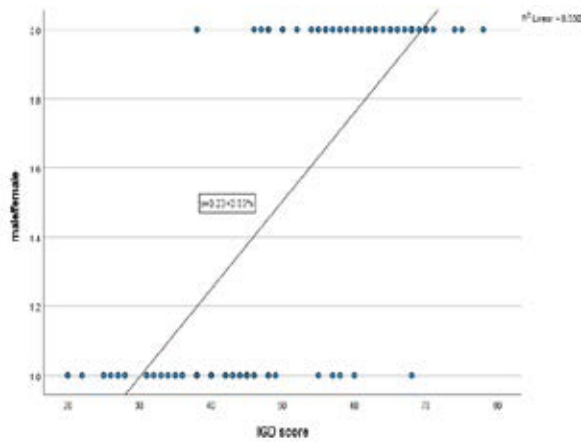
Internet Gaming Disorder Scale was given to subjects. Data was analyzed using statistical testand Co-relation of IGD test score with age and gender was found. Results were formed according to the analysis of data then Study was concluded based on the results of data analyze

Statistical Interpretation

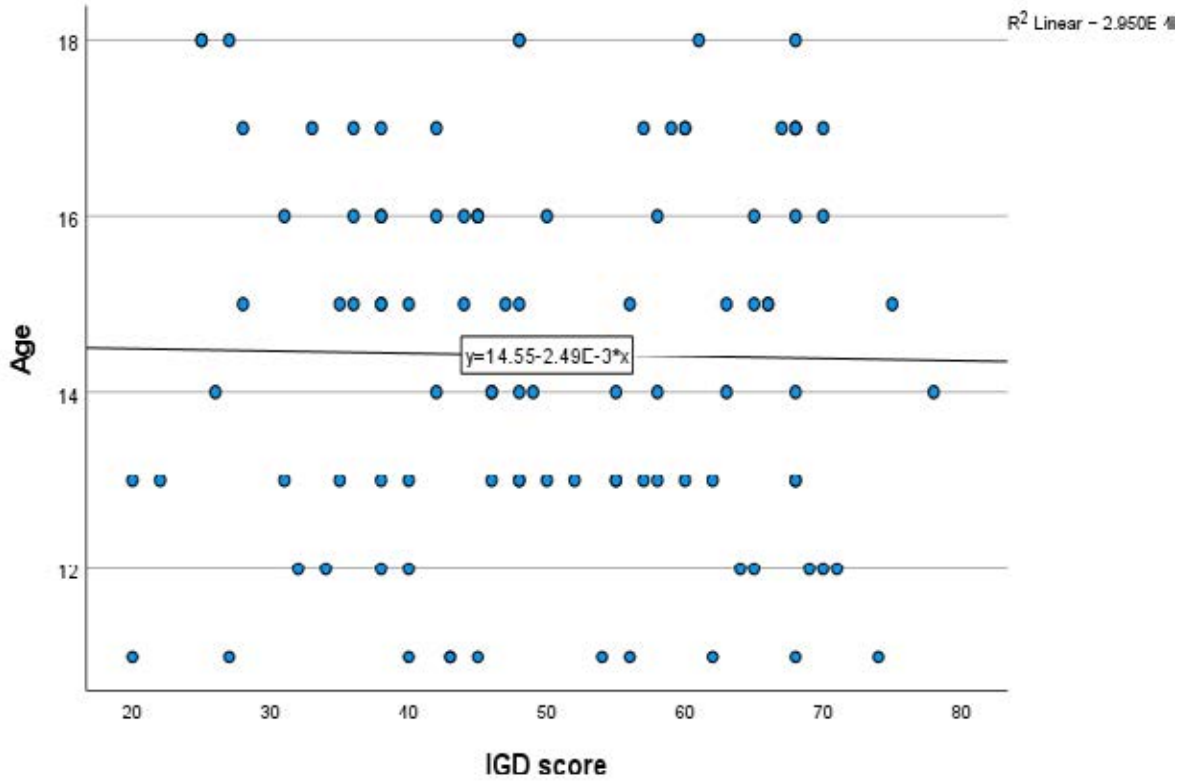
Data was analysed using the IBM Statistical Package of Social Sciences (SPSS) version 28 software for windows. Descriptive Statistics was done on the demographic characteristics such as age, gender, class/grade, type of internet games played, types of devices used for internet gaming and gaming hours per day. Karl Pearson's correlation test (2-tailed) was used for finding the correlation of age and gender with the scores of The Internet Gaming Disorder Scale (IGD-20)[22-24]. The significance value for the study results was set at $P < 0.05$.

Result

This study was taken upto study internet gaming disorder among adolescents and find it's correlation with age and gender**.** Hypothesis of the study was to find the corelation between internet gaming disorder score and gender and to find the corelation between internet gaming disorder score and agein adolescents who met the inclusion and exclusion criteria of the study. The finding shows that responders were classified into two categories, having 1:1 ratio of male is to females, age group 1 that included participants aged from 11 to 14 years with mean of 12.64 and age group 2 had 15 to 18 years old participants with mean of 16.26.In internet gaming disorder scale score, Lowest score obtained was 20 and highest was 78 with a mean of 49.83. Out of 100 participants, 4 met the cut off point for Internet gaming disorder scale i.e, 71 points were disordered gamers, 96 were other gamers.



INTERPRETATION:In bivariate Analysis for finding the corelation between IGD-20 scores and gender, Males significantly showed higher associated with higher scores in Internet Gaming Disorder Scale-20.They showed a strong positive linear relationship with r value 0.742.



INTERPRETATIONParameter estimates in finding the corelation between IGD-20 scores and age indicate that the respondent's scores of Internet Gaming Disorder scale with Age shows no significant relationship with r value -.017.

Discussion

The aim of this study was to investigate the relationship of internet gaming disorder with age and gender. To examine whether Internet gaming disorder has any relationship with age and gender, data was collected from 100 adolescents who have their own multimedia device for playing games. The INTERNET GAMING DISORDER SCALE[22-24] (IGD-20 Test) [10] a standardized psychometric tool was used to assess Gaming Disorder among us participants of the study.According to the results of this research, a positive correlation exists between Internet gaming disorder and gender. Positive correlation means that a high value on IGD scores is associated with a high frequency of Male. With "r" value of 0.742 which shows strong linear relationship between these two variables. This result rejects the null hypothesis that states that there is there is no corelation between internet gaming disorder score and gender. In China, a study done by **Yanqiu Yu et al** states that adolescent males had a higher prevalence of IGD than females. [11] The three forms of maladaptive cognitions specific to Internet gaming with substantial impact sizes were largely mediated by the sex difference in IGD prevalence. Furthermore, teenage boys were more likely than their female counterparts to have such maladaptive cognitions. IGD, if left untreated, can have negative psychosocial consequences for gamers

and their families. [10-12]

Another finding of this research indicates that the correlation between the respondent's scores of Internet Gaming Disorder scale with Age were not significant with "r" value of -.017. This result accepts the null hypothesis (H02) which states that there is no corelation between internet gaming disorder score and age. Although study done by **Griffiths MD et.al** states that IGD appears to be more prevalent among older adolescents. The results of the present study revealed that 4% of the study's sample was classified using the IGD-20 Test, as having Internet Gaming Disorder. The incidence of IGD as reported in other studies, with a range of 1.2 percent in Germany [7] and 14.6 percent in the United Kingdom [12] Studies conducted in India showed a prevalence rate r from 12.3% to 73.9%. [20-21]According to **Mentzoni et al**, 15.4% of male adolescents aged 16 to 21 years and 9.7% of young men aged 22 to 27 years have problematic video game use, while rates in all other age and sex categories were under 3%.[17]

IGD is a serious emerging adolescent male health issue, according to the evaluated literature. Men's increased risk, for example, has been validated by IGD sex differences studies, whereas neuroscience is helping to map IGD addiction circuits [16] and CBT is a potential generic treatment.[15,16]. In minors, IGD interferes with daily living activities related to schoolwork, such as skipping school classes [7] and academic performance [18]. The substantial sleep problems observed in minors with IGD [7] could be linked to these schoolwork interferences. IGD may also be more common among students who perform poorly in school. Qualitative studies in addiction have found that activity engagement is often reduced in other areas such as leisure, play, sleep, etc. This could lead to disruption in occupational performance areas in adolescence resulting in isolation, frustration, preoccupation with thoughts and lack of enthusiasm.

Conclusion

The present study aimed to correlate internet gaming disorder with age and gender among Indian adolescents. In this study we found that among sample population 4% came under the likely disorder of internet gaming according to internet gaming disorder scale (IGD20). The findings advance our understanding of the nature of gaming addiction. It demonstrates that Males significantly showed higher association with higher scores in Internet Gaming Disorder Scale- 20 and scores of Internet Gaming Disorder scale with Age shows no significant relationship. The results raise social awareness and the risk associated with Internet gaming among the male population

Ethical Clearance-Nil

Source of Funding- Nil

Conflict of Interest –Nil

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