Addiction to Online Video Games among First Year Medical Students of a College Located in Western India

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Abstract:

Introduction: Video gaming has become a popular leisure activity especially among students. This behavior in excess can result in significant impairment in personal, social, educational or other domains of life and can affect routine functioning. **Objectives :** To estimate the prevalence of addiction to online video games and to identify the association of addiction to online video games with gender among the first year medical students of a college located in western India. **Method :** A cross sectional study was conducted among 189 first year M.B.B.S students of batch 2019. Young's online gaming addiction scale was utilized. The questionnaire was administered by using Google Form and was analyzed using Microsoft Excel 2010. **Results :** The prevalence of addiction to online video games was 62.43% among1st year medical students. There was no statistically significant association seen between male and female students to addiction of video games. **Conclusion:** Students to be encouraged of rational use of internet for online video games to protect their physical and mental health.

Keywords: Addiction, Medical students, Video gaming

Introduction:

Gaming disorder is characterized by craving of the person to play video games. This may affect daily routine activities of the person, along with poor performance in studies, inability to meet the demands in occupation, other areas of important functioning and disturbances in family relationships.[1] According to World Health Organization (WHO), gaming disorder is diagnosed after a period of at least 12 months, but earlier in the case of severity of signs and symptoms. WHO has recognized gaming disorder as a major problem and has been added under International Classification of Diseases – 11 (ICD-11), i.e. disorders due to substance use or addictive behaviors with a code 6C51.[2] Internet use is one of the most important tools of our present-day society; however its impact can be seen in the form of increased use. It brings change in mood, an inability to control the amount of time spent with the Internet, withdrawal symptoms when not engaged, a diminishing social life, and adverse work or academic consequences, and it also affects self-esteem of the students.[3]

Results of a systematic review of the literature by S. Mihara et al., shows the prevalence of Internet Gaming Disorder (IGD) in the total sample ranging from 0.7% to 27.5%.[4] A study by M. Griffiths et al., suggested that Internet addicts become addicted to different aspects of online use where they are differentiated between three subtypes of Internet

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addicts: excessive gaming, online sexual preoccupation, and e-mailing/texting.[5] There has been an explosive growth in the usage of Internet not only in India but also worldwide. Reports reveal that there were about 137 million Internet users in India in 2013 and India is predicted to be the world's second largest country in Internet use after China in the near future.[6] According to the Internet and Mobile Association of India and Indian Market Research Bureau, out of 80 million active Internet users in urban India, 72% (58 million individuals) have accessed some form of social networking in 2013. [6]

As there is scarce information on internet gaming addiction among medical students, the present study was conducted among the medical students of first year studying in a medical college located in western India to estimate the prevalence of addiction to online video games and to identify the association of addiction to online video games with gender.

Method:

A cross sectional study was conducted during August 2019, among newly admitted 189 first year M.B.B.S students of a medical college when they were undergoing Foundation Program. 189 out of 200 students who were present on day of data collection were included in the study. Young's internet addiction scale questionnaire[7] was administered to collect data through Google Form with the help of mobile phones after taking informed and verbal consent.The questionnaire consists of 20 questions, related to usage of internet for online video game and its harmful effects. All questions were answered by using 5 point Likert scale ranging from "0" to "5" (The higher score suggests the greater level of addiction). The responses given by each individual student were summed up and divided into 4 categories based on scores; 0 -19 = No addiction, 20 – 49 = Mild addiction, 50 – 79 = Moderate addiction and 80 – 100 = Severe addiction. Data was analyzed using Microsoft Excel 2010.

Results:

The mean age of students who participated in the study was 17±0.5 years. Out of the total students, 71.5% were males and 28.5% were females. Majority of the students used Mobile phones (83%), followed by computers (17%) for playing games. The prevalence of addiction to online video games was 62.43% among1st year medical students. There was no statistically significant association seen between male and female students to addiction of video games.

Out of 189 participants, 71 (37.5%) students were not having any kind of addiction to online video games. While Mild, Moderate and Severe addiction was seen in 105 (55.6%), 12 (6.4%) & 1 (0.5%) respectively as shown in Figure 1.

Out of the 189 students, only one male student (0.7%) was having severe form of addiction to online video games. 50 (37.1%) male students and 21 (38.9%) female students were not addicted to any online video games. Mild addiction was found in 74 (54.8%) males and 31 (57.4%) females; whereas Moderate addiction was found in 10 (7.4%) male and 2 (3.7%) female students as shown in Figure 2.

There was no statistically significant association seen between male and female students to addiction of online video games (X^2 value = 0.056, p value > 0.05) as shown in Table 1.

Discussion:

Results of a study conducted by Pradeep Yarasani et al., among medical students of Katuri Medical College, Andhra Pradesh in 2018 by using Young's internet addiction scale[1] showed a prevalence of Mild, Moderate & Severe addiction as 71.3%, 22.6% & 6.1% respectively; whereas the current study shows a lower prevalence of gaming addiction which is 55.6%, 6.4% & 0.5% respectively. A study carried out by Manish Kumar and Anwesha Mondal among students of different colleges of Kolkata in 2018,[3] found lower prevalence of Mild addiction (29%) and higher prevalence of Moderate

Figure 1: Distribution of study participants according to severity of addiction (n=189)

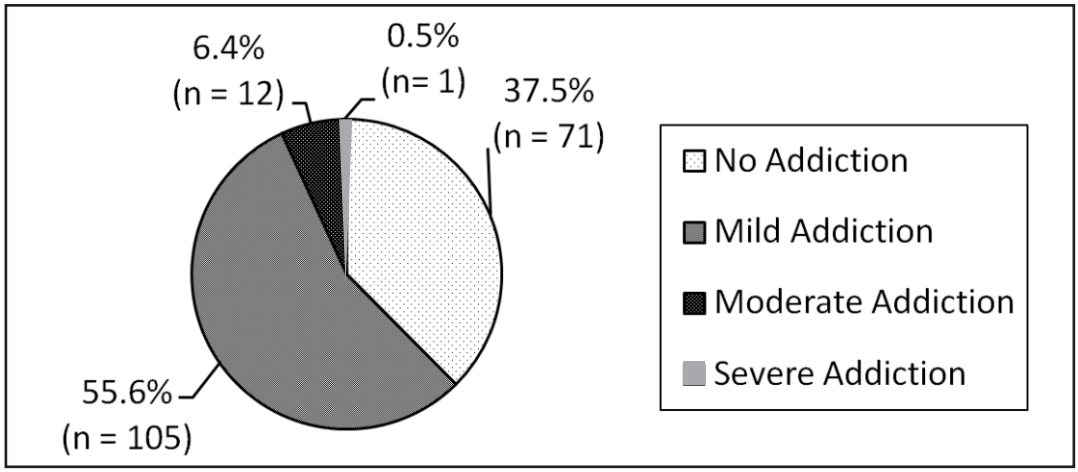

Figure 2: Gender wise distribution of gaming addiction (n = 135 for male; n = 54 for female)

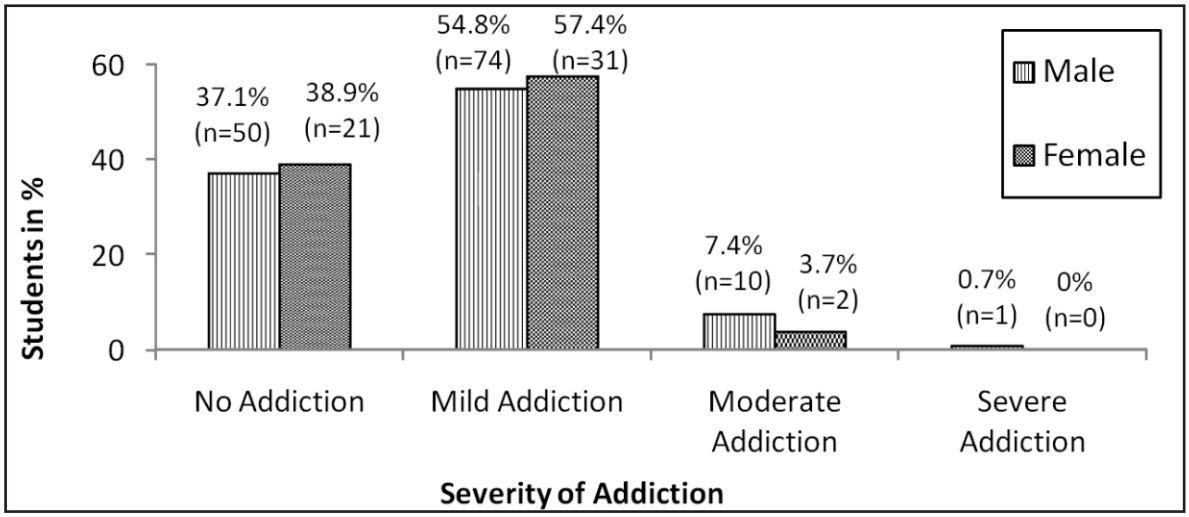

Table 1: Association of gaming addiction with gender

Addiction	Male | n (%)	Female | n (%)	Total | n (%)
No Addiction	50 (37.03)	21 (38.89)	71 (37.57)
With Addiction	85 (62.97)	33 (61.11)	118 (62.43)
Total	135 (100)	54 (100)	189 (100)

and Severe addiction (31.5% & 39.5%) as compared to the current study. Results of a systematic review of the literature by S. Mihara et al.,[4] showed a higher prevalence of Severe addiction in the total sample ranging from 0.7% to 27.5% as compared to the current study.

In the current study, there was no statistically significant association seen between male and female students to addiction of online video games; which is in contrast to study conducted by Pradeep Yarasani et al.,[1] which showed significant association. The results of study conducted by Jia-Rong Sheng et al., among students of seventh, eighth, and ninth grades of a junior high school in China in 2019 using Mobile Game Addiction scale[8] showed that significant gender differences existed

considering the relationship between mobile game addiction and social anxiety. Male adolescents who used mobile game additively reported higher levels of social anxiety, depression, and loneliness, compared to female adolescents.

Conclusion and Recommendations:

The study found that almost two third of the 1st year medical students were addicted to online video games; appropriate preventive and interventional strategies need to be developed to encourage rational use of internet for online video games in order to protect the physical and mental health of the students. This can be implemented as part of a month long foundation program under new Competency-Based-Medical-Education (CBME) curriculum for under graduates.

Declaration:

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Conflict of Interest: Nil

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