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AN EPIDEMIOLOGY BASED STUDY ON INTERNET GAMING: CONTRIBUTING FACTORS AND HEALTH IMPACTS OF INTERNET GAMING ON YOUTH

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ABSTRACT

Background: Internet Gaming Addiction has been described as a specific subtype of Internet Addiction. Literature Review shows that up to 90% of American youngsters play video games and about 15% of them may be addicted. Grave Consequences like suicide deaths and attempts were also reported due to Internet Games. **Objective:** -To assess the Contributing Factors of Internet Gaming and their Physical, Psychological and Social Health Impacts on Youth Population. **Study Design and Sampling Technique:** Cross-sectional Study was conducted through convenient sampling. **Study Period:** November-March 2017-18. **Study units:** Students of Homeopathic Medical College, Chandigarh. **Study Area:** Homeopathic Medical College, Chandigarh. **Data collection methods and analysis:** Pre-designed questionnaire with 30 multiple choice questions was used to collect data from the participants after taking their consent. **Setting and participants:** The study was conducted in City beautiful i.e. Chandigarh, a modern capital city of two states of India. The sample includes undergraduates. 120 students (Population) were given Questionnaire and 98 students participated voluntarily. **Results:** Study shows that youngsters who are living away from family are more indulged in Internet Gaming.Escapism, Excitement, Peer Pressure and Boredom are Factors affecting Internet Gaming Indulgence. Eye Strain, Intense Emotions and Substitution of Hobbies & Sports are Impacts of Internet Gaming Indulgence. **Conclusion:** Internet Gaming Indulgence is more prevalent in nuclear families or children living away from family. It has strong impacts on young population affecting their health, academics and social interactions.

INTRODUCTION

Internet Gaming has been described as a specific subtype of Internet Addiction. In seventies, for the purpose of money making companies introduce video games and people also started using it as pastime activity. Eventually, it has been gain popularity, despite of age and gender. The motivational properties of gaming have the potential to be harnessed for educational purposes. It is observed that newer teaching methodology in form of digital education helps to improve the standard of education and in nutshell it is one of the cost effective approach (Gentry, 2019). However in twenties researchers found that excessive use of internet (online gaming) and video games causes serious addiction problems in

population. Subsequently, they start focusing towards this emerging issue and its negative impact on society (Király, 2015). In addition to this studies shows that up to 90% of American youngsters play video games and about 15% of them may be addicted (Tanner, 2007 and Sachdeva, 2015). Grave Consequences like suicide deaths and attempts were also reported due to Internet Games. Furthermore, in current scenario China reports, approximately 46.64 million teenagers between the ages of 10 and 19 years are indulge in playing constant games on internet (China Internet Network Information Center, 2019), (China Internet Network Information Center, 2011). Still it is a matter of debate that whether playing these games continuously is beneficial or not. Researchers had mixed views some assert that participation in

online gaming can be fruitful to the development of youngsters because it provide entertainment and prepare competitive mind-sets. Literature also reflects that people who have higher academic aptitude, positive outlook and clear individuality (Shek, 2012), have been shown to be at a low risk for Internet addiction, however, probability for Internet addiction found to be higher in males and also it is age related. [7]Besides this, recent studies evaluate the symptoms which reflect that in extreme cases there can be highly destructive consequences. Because it become challenging for the addictive person to come out from this extreme behavior even after realizing the problem such as experiencing withdrawal-like symptoms and this creates havoc in their lives. In case of extreme cases, addictive person ignore their basic needs and faced lot of health issues like headache, body aches, malnutrition and lot more (Király, 2015).

Theories related to Internet Addiction and its disorder: To describe the internet addictive researchers develop various theories. In this context, one famous model is known as According to the social skill model of problematic internet use (PIU, Caplan, 2005), those who report a use of communicative services associated with negative outcomes have developed, as consequence of self-perception of social incompetence, a preference for online social interaction (POSI). POSI is defined as a ''cognitive individual difference construct characterized by beliefs that one is safer, more efficacious, more confident, and more comfortable with online interpersonal interactions and relationships than with traditional face to face (FtF) social activities'' (Caplan, 2003, p. 629).[9] According to Caplan (2005), POSI is already a cognitive symptom of PIU.

Indian Scenario on internet gaming disorder: Recently, the Diagnostic and Statistical Manual of Mental Disorders in its fifth edition quoted it as separate diagnosable disorder. Unfortunately, in the developing countries there is scarcity of data regarding its exact prevalence and other related risk factors; henceit become a challenging task in identifying the number of people exposed to develop this disorder. In view to this, present study was designed to assess the contributing factors of internet gamingand its physical, psychological and social health impacts on Youth Population (Naskar, 2016).

MATERIALS AND METHODOLOGY

Study Design and Sampling Technique: A cross-sectional with convenient study sampling was carried out among the undergraduate (BHMS) students in a Government homeopathic college and hospital of Chandigarh from November 2017 to March 2018; after taking approval from college authorities. All 120 students of the college was included in the study. Only students who gave their informed consent and who have been using internet for at least for 6 months prior to the study were included. Participants were assured that the information given by them would be anonymous and confidential to avoid reporting bias.To ensure this fact to students the column of name is optional for them. Out of 120 students, 98 were voluntarily participated in the present study.

Data collection and analysis: The data was collected from participants after taking their consent. A pre-structured questionnaire which contains thirty multiple choice questions based on the information about their demographic data,

information about internet usage and prevailing factors. Statistical analysis of data was carried out by using SPSS.
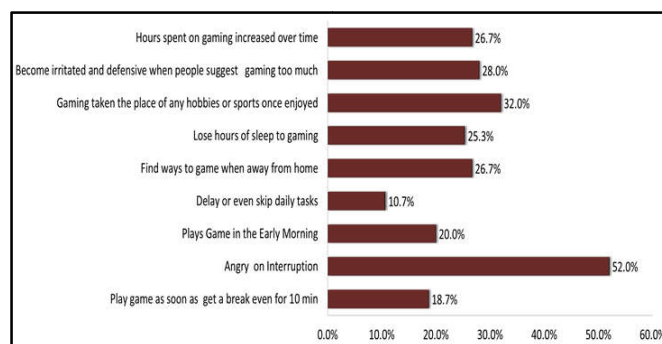
RESULTS

Total 120 questionnaires distributed, 98 were taken for further analysis as 22 students did not fill the questionnaire**.** Out of total 98; 60 (61.22%) were female and 38 (38.78%) were males. The mean age of study sample was 20.58 years, the range being 18 to 26. More than half (63.6%) participants were playing online games for 1-5 hours/day. Majority of (86.8 %) students plays Internet Games and about one-fourth of students (25.58%) who play internet games are addicted to them. Internet Gaming is more prevalent in males (76.31%) than Females (65%). About 62.6% youngsters play games on Smartphone or on Tablet. It was found that 73.8% of students living with family was internet gamers whereas 66% students residing in hostels and rented accommodations are indulged in internet gaming.
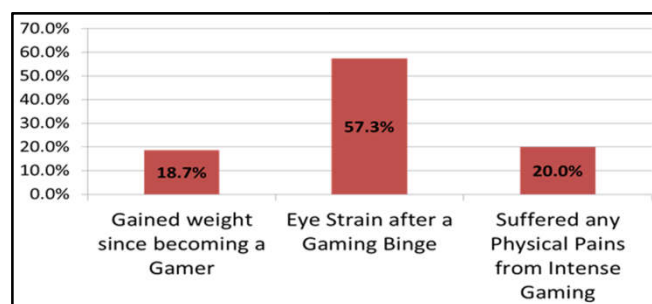
Figure 1. Adverse Physical Effects of Internet Gaming On Health

Facts showed that internet gaming addiction causes lot of health problems among students such as eye strain in (57.3%), aches in (20.0%) and weight gain in (18.7 %). Furthermore, this severely affects their activities of daily life.

Figure 2. Symptoms of Internet Game Addiction

Results showed that addiction of internet gaming may effects students psychologically and socially in a big way. About one fourth of the students who are indulge in playing were the victim of insomnia (25.3%), get-ting bored from almost everything in life except Internet Gaming (28%). Similarly, internet gaming not only effect health but also causes distress in personal and social relationships of young people. It is also affecting their study and their social life on a big way. It was come into notice that contributing factors leading to Internet Gaming convention are boredom, peer impact, loneliness and escapism as the find internet gaming as a way to soothe when they are upset (Table 1).
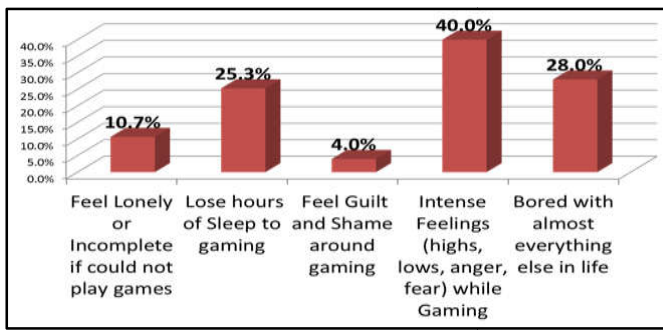
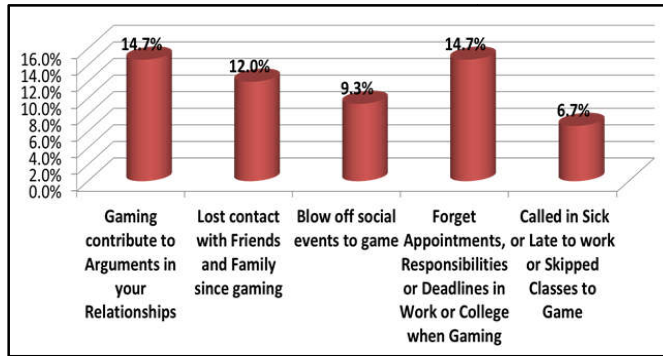**Figure 3. Psychological (Mental) Effects of Internet Gaming On Health**

Figure 4. Adverse Social Effects of Internet Gaming

Table 1. Contributing Factors for Internet Gaming Addiction

Contributing Factors	(%)
Boredom	28.0%
Peers impact topic of conversation	30.7%
Loneliness	10.7%
When upset soothe with games or plans to game	45.3%

During study, students were specifically inquired about Blue Whale Game which was in news and highlight on their impact on young people. Striking and threatening finding was come out; that most of them were aware about Blue Whale Game and about its catastrophic results. In spite of that fact, one out of every five students still desired to play Blue Whale Game. It shows the precarious effects of internet gaming on young minds which leads to suicide ultimately.
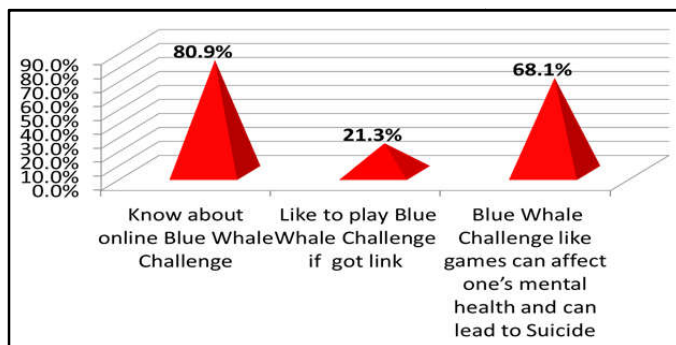

Figure 5. Excitement and Impact of Blue Whale Game on Youngsters

DISCUSSION

The understanding of Internet addiction is still in initial stages in Indian subcontinent. Present study showed that majority of students' plays internet games. Further, one fourth of the students who play internet games are addicted to them. Internet Gaming is more prevalent in boys than in girls. Most of students play games on Smartphone or on Tablet. Majority of students living with family was internet gamer which shows that youngsters are giving more importance to virtual world of internet gaming instead of family relationships. Changing family scenario of nuclear families where every member of family is busy in its own life is leading to loneliness and boredom in young people leading to their overindulgence in internet gaming like virtual reality world. Studies showed that Eye Strain (57.3%), Pains (20.0%) and Weight Gain (18.7 %) are physical health impacts suffered by students due to indulgence in internet gaming. Internet Gaming is affecting students psychologically and socially in a big way as about one fourth students who are playing are losing sleep, getting bored from almost everything in life except Internet Gaming and their day to day life is affected drastically from Internet Game Indulgence. Boredom, Peers Influence and Soothing Effect when they are Upset are main contributing factors for Internet Game Playing.One participant out of five showed interest in playing Blue Whale Challenge even after having knowledge of risk associated, due to curiosity and excitement.

There is always a dark side to new technologies. In case of Internet, it turns to an addiction which is a recent concept and still under research. Internet gaming addiction is the latest phenomenon in the world of Internet.[12] With the increased use of smartphones internet addiction and internet gaming addiction is rising. Youth starts to play games on smartphone whenever they get a chance due to easy accessibility of internet gaming on smartphones. Computer and smartphone-based games have revolutionized the world and the concept of virtual reality. The attraction of losing oneself in the realms of virtual reality that has been provided by those platforms is beyond anything. But, what happens in reality when people get busy losing themselves in the "virtual reality?" (Naskar, 2016). This is a big question of today's smart technological world. The psychological and social impacts of internet gaming varies and include difficulty in real-life relationships, disturbances in sleep, work, education, socializing, attention, academics, and memory. It may include aggression and hostility, loss of interest in hobbies and games, and loneliness (Ng, 2005; Kuss, 2013; Kuss, 2012; Batthyany, 2009 and Shapira, 2000). The results of the present study also showed dangerous psychological and social effects on young minds. It has proliferated and spread across the Indian subcontinent, in spite of deeply knit family systems, family values and parental supervision. Systematic studies need to be undertaken in various population groups to evaluate the prevalence and type of gaming addiction. Inter Personal Communication among Parents and Youngsters is need of the hour to save them from Internet Gaming Addiction. Social Behavior Change Communication Strategy is required to deal with menace of Blue Whale Challenge like Internet Games in place of just providing information. It is suggested that facilities like services for healthy use of technology clinic (NIMHANS) are required to cover all areas of country so that youngsters suffering from internet gaming addiction can be counseled and rehabilitate.

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