

A SURVEY ON INTERNET GAMING DISORDER AND ITS EVALUATION AMONG STUDENTS OF GUNTUR DISTRICT

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Abstract

Psychology is a science which studies about the human minds, their functions and behavioural effects. It was altered due to several reasons. Major age group that were indulged into psychological disorders are teenagers. As they use various gadgets, it alters their psychology. One of the highly effective things is gaming on internet. As most of the students have been affected by gaming disorder all over the world, the American Psychiatric Association (APA) thought there is a need to include it in Diagnostic and Statistical Manual of Mental Disorders (DSM). So, a worldwide study was invited by APA on internet gaming disorder. In this view, a survey has been conducted on students of various colleges of Guntur district regarding their internet gaming pattern. A questionnaire was prepared which includes their personal history and evaluation parameters. A total of 780 students have been participated in the study which include both males and females. Majority of the students were found to play games on mobile phone. An average of 6-20 hours of gaming per week was noted. Based on the questionnaire, the nine DSM-5 criteria were evaluated and a total of 167 students were found to be among the disordered group. Loss of control followed by failure to withdrawal from internet gaming were the main reasons for this disorder. From this study, it was concluded that internet gaming is a serious psychological disorder among students and they should be counselled. Further, we suggest APA to include internet gaming disorder in DSM-V.

Keywords

DSM, loss of control, mobile phone, psychology.

Introduction

Psychology is the science of behaviour and mind, including conscious and unconscious phenomena, as well as feeling and thought. A mental disorder is a clinically significant behavioural or psychological syndrome or pattern that occurs in an individual which is associated with distress with an increased risk of suffering, pain, disability, or an important loss of freedom ¹. A great deal is now known about the prevalence of the major types of mental disorders among different age groups in the general populations of many countries, and a considerable amount is known about their likely causes. They may be due to genetics, substance abuse and cognitive style ². It leads to altered day to day activities, employment, education, relationships, physical health and sleep ³.

American Psychiatric Association (APA) offers a common language and standard criteria for classification of mental disorders and they call it as DSM (Diagnostic and Statistical Manual of Mental Disorders). It is used by various clinicians, psychiatry related agencies, researchers and others for classification of mental disorders ⁴. Till now, five DSMs were given by APA which included several psychological disorders. Recently, a focus was lead by World Health Organization (WHO) and other organizations on the psychological behaviour of students at young age. It revealed shocking facts about their mental health ⁵. Based on a state-wide representative survey in Germany, endorsement of five or more criteria of DSM-5 internet gaming disorder (IGD) occurred in 1.16% of the students, and these students evidence greater impairment compared with non-IGD students ⁶. This might be due to several reasons. Addiction, loss of control and reward gaining were attractive among young students. IGD can affect the physical and mental status of a person. It can be manifested by psychological symptoms like depression, dishonesty, guilty feeling, anxiety, and euphoria when using the source of internet gaming, isolation, loss of timely work, defensive behaviour, mood swings, loneliness and boredom ⁷. The physical symptoms include backache, carpal tunnel syndrome, headache, insomnia, poor nutrition, poor personal hygiene, neck pain, vision problems and altered body weight. It can be diagnosed by simple method of withdrawal. Cravings for gaming source show their IGD ⁸.

The current study mainly focused on evaluation of internet gaming disorder among young students from various colleges of Guntur district, Andhra Pradesh, India. The students were given questionnaire which had various questions that reflect the nine DSM – V gaming disorder criteria. Scoring was given based on the answers and the students were divided into disordered and non-disordered group.

Method

Sampling and Participants:

Data collection was done from various colleges in and around Guntur district. The study was conducted for a period of five months from August 2019 to December 2019. Prior to starting the survey, all participants were informed about the goals of the study. They were assured about anonymity and confidentiality and their informed consent was obtained. All the questions in the questionnaire were explained to the students. Only those who are willing to participate in the study were taken. Students from various disciplines like Pharmacy, Medical and Engineering were included in the study. A total of 780 students have participated in the survey. The current study was exempted from Institutional Ethics Committee (IEC).

Inclusion Criteria:

Samples of either gender within the age group of 18 to 24 years and who are willing to participate in the study were included.

Exclusion Criteria:

Samples with any mental disorders were excluded from the study.

Procedure:

The data from 780 gamers was analyzed. According to Buhner, this is a very good sample size for conducting a factor analysis. Of those, 280 (35.89%) were male and 500 (64.10%) were female. The participants have filled their demographic information (name, age, sex, course and year of study) and other data concerned to their gaming. In addition, they answered the English version of the questionnaire ⁹.

Internet Gaming:

The participants were asked for which game they played most, how long they were playing and the number of hours per week they played Internet games. This was indicated in figures 1, 2 and 3.

Internet Gaming Disorder Questionnaire:

The English (India) version of the Questionnaire was given for filling. These items reflect the nine DSM-V criteria of internet gaming disorder. They were developed after wide literature review and explained in a brief and simple way by adopting clear unambiguous wording for each item. The questionnaire has tetrachotomous response format with 0 (no), 0.5 (can't say), 1 (sometimes) and 2 (yes) scoring. For some questions, trichotomous response format was taken into consideration with 0 (no), 0.5 (can't say/sometimes) and 1 (yes) scoring.

Evaluation of Cut-off Score:

A cut-off score was set to differentiate the students with Internet Gaming Disorder. According to previous studies, the cut-off should be set to a level of 80% of the maximum score.

Diagnostic Criteria of IGD in DSM-V:

The diagnostic criteria of IGD in the DSM-V were composed of 9 items which were given by APA. They are given in table 1.

Table 1: List of Diagnostic Criteria of Internet Gaming Disorder in the DSM – V

S. No	Diagnostic Criteria	Definition
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1	Preoccupation	A state of being lost in one's thoughts and self absorbed that spans from temporary absent mindedness to a state of schizophrenia
2	Withdrawal	A psychological or physical syndrome caused by abrupt cessation of regularly addicted action
3	Tolerance	A condition develops from continual addictive actions. It is a fair objective and permissive attitude towards those whose opinions differ from one's own
4	Continuation	The tendency to create continuous patterns and perceive connected objects as uninterrupted
5	Escape	Tendency of people to avoid unpleasant situations which helps them in engaging their habituated actions
6	Loss of Control	Lack of ability to provide conscious limitation of impulses and behaviour as a result of overwhelming emotion
7	Giving up other Activities	Condition where the daily activities or significant actions are neglected or not performed well
8	Deception	Phenomenon where there is a wilful misleading of others
9	Negative effects	Consequences that will affect the person's life which may lead to ill health or psychological damage

A semi-structured questionnaire was developed to examine the DSM-V criteria of IGD. The participants social and recreational activities were inquired first and then inquired as to whether they had lost interest in previous hobbies and entertainment as a result of Internet gaming. If they responded positively to this question, and Internet gaming is really dominant in their daily life, then criterion 7 was fulfilled. Later the participants were inquired about their deception towards families or others regarding their Internet gaming to confirm criterion 8. To evaluate criterion 5, a question was asked that whether they usually escape to Internet gaming under stress or use Internet gaming to relieve a negative mood. For evaluation of criterion 9, their mental and physical abilities were questioned in detail like a severe impairment or failure in work, academic studies, or examination performance, gain in body weight and ill effects that are attributed to Internet gaming ¹⁰.

Criteria Endorsement:

After obtaining the questionnaire from students, the data was analyzed. According to the values, the students endorsing the nine criteria of IGD were noted. Among all the students, the students who crossed the cut off value were also listed down and their criteria endorsement was also noted down. The results were indicated in table 3 and figures 4 and 5.

Results and Discussion

A questionnaire related to Internet gaming disorder was given to the students of various colleges and the filled in forms were collected.

Descriptive Statistics:

The final sample population is 773 out of which 279 (36.09%) were males and 494 (63.91%) were females. 07 student responses were excluded from study due to incomplete filling of questionnaire. The mean age was 21.2 years with the youngest participant being 18 years and the eldest being 24 years. All the students were unmarried and still pursuing their studies. A large part of the students were interested to play internet based games on their mobile phone. This was similar to previous study ¹¹. The results were indicated in table 2.

Table 2: Mode of Playing of Internet Games

S. No	Mode of Playing of Internet Games	No. of Students	Percentage of Students
1	Play Station	29	03.75
2	Laptop/Personal Computer (PC)	109	14.10
3	X-Box	10	01.29
4	Mobile Phone	625	80.85

Mostly Played Games by Students:

Male students played pubg the most, whereas females played candy crush saga. The results were indicated in figure 1.

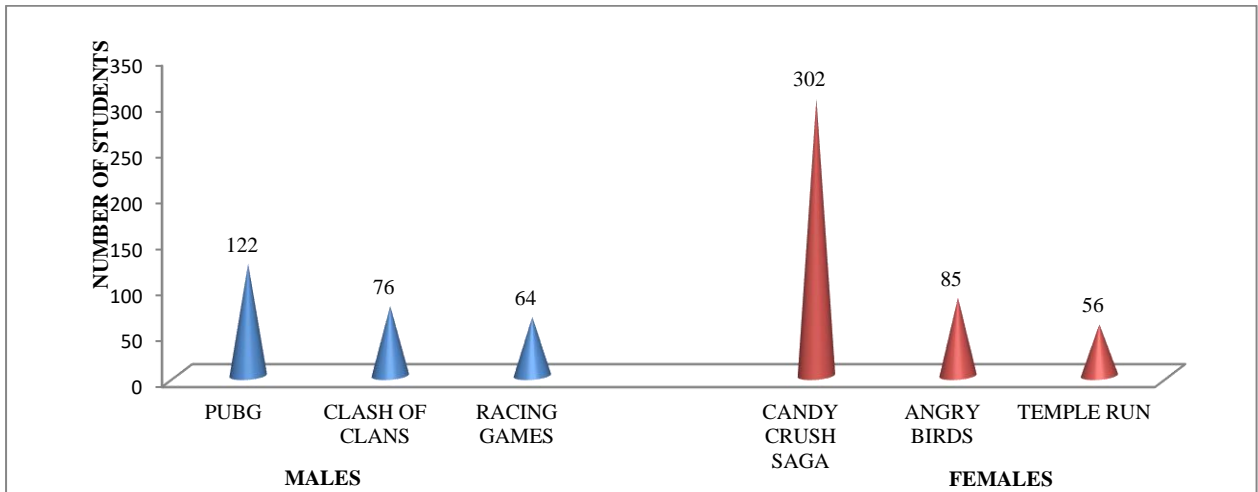


Fig 1: Mostly played Games by Students

Gaming Duration History:

The students were also asked since how long they have been playing games. The result was indicated in figure 2.

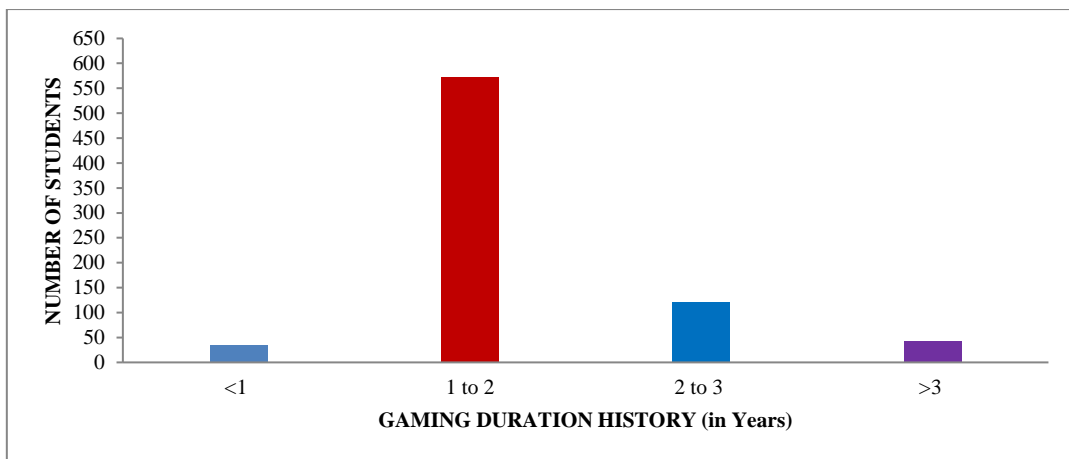


Fig 2: Gaming Duration History of Students (in Years)

Gaming Time:

The students were assessed for their average gaming hours per week. Maximum students like to play games for an average of 6-20 hours. This was given in figure 3.

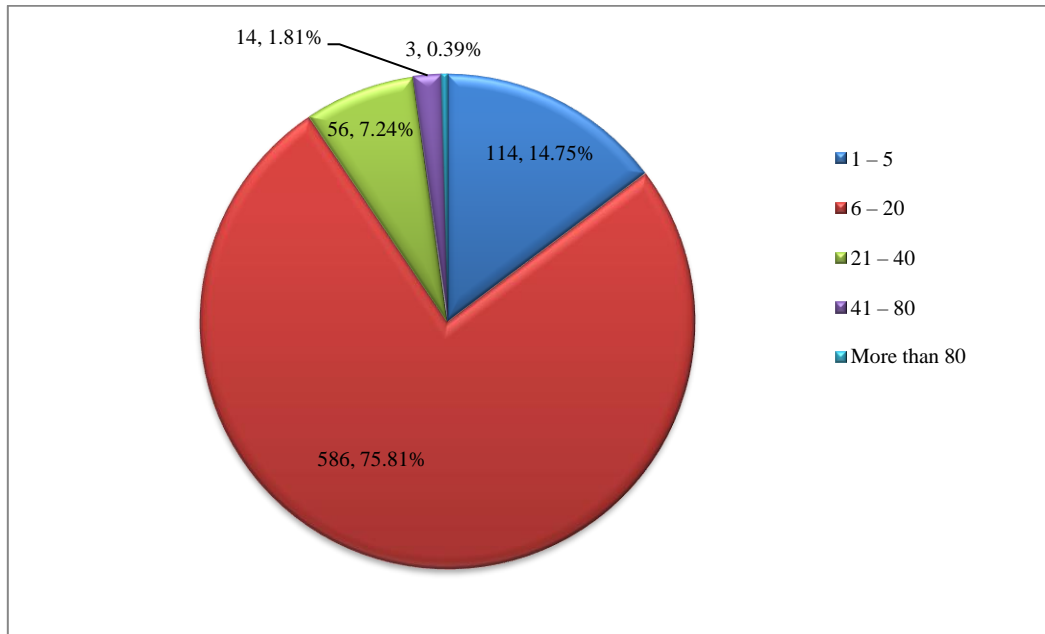


Fig 3: Average Number of Hours Spent on Internet Gaming by Students (Weekly)

Analysis of IGD Questionnaire:

The IGD questionnaire was ruled according to DSM-V criteria. A total of nine criteria were framed and all the subjects were analyzed for these criteria. A maximum score of 54.5 was made out if all the questions were answered yes. From this, a cut off score of 43.6 was set.

Conversion of Questionnaire to Nine Item DSM-V Criteria:

According to DSM-V, the questionnaire was converted to nine items. These nine criteria were preoccupation, withdrawal, tolerance, continuation, escape, loss of control, giving up other activities, deception and negative effects.

Criteria Endorsement in Total Sample:

Generally a specific criteria endorsement pattern was identified in the responses.

Table 3: Criteria Endorsement in Total Sample

S. No	Criterion	Endorsement in the Total Sample (N=773)	
		N	%
1	Preoccupation	109	14.10
2	Withdrawal	104	13.45
3	Tolerance	105	13.58
4	Continuation	154	19.92
5	Escape	103	13.32
6	Loss of Control	181	23.41
7	Giving up Other Activities	117	15.13
8	Deception	58	7.50
9	Negative Effects	114	14.74

N=sample population

Of all the students, “loss of control” was found to be severe criterion with highest sample size. This attributes to the inability of students psychological control over mind regarding their activities. Whereas “continuation” lies in second place which indicates that the students are habituated to play games continuously even without proper sleep. This matches with the other studies too ¹². Most of the times, the daily activities like brushing teeth, taking bath and attending meetings were skipped. The negative effects like weight gain, headache, eye strain and neck pain were commonly seen. The students with cheating thoughts were less. This was indicated in table 3.

IGD Prevalence:

Based on nine criteria endorsement suggested in DSM-V as the cut-off threshold for classifying disordered gamers, IGD prevalence rate in the present sample was 21.60% (N=167). All these students were in internet gaming from past 1 to 2 years. This was similar to the results of past studies ¹³.

Criteria Endorsement in Students with IGD:

The criteria endorsement among students with internet gaming disorder almost followed similar pattern as that of total population but with minor changes. Of all the students with IGD, “loss of control” was found to be severe criterion with more sample size. This attributes to the severity of loss of psychological control over their activities ¹⁴. Whereas, “withdrawal” lies in second place indicating that the students are unable to withdraw themselves from the internet gaming and are habituated to play games continuously. Even if they have tried to withdraw from gaming, they have failed in that too, as they have uninstalled and reinstalled the games. According to many studies, skipping the day to day works like attending college in time, missing of college buses and fails to complete tasks in time like submitting assignments were also found ¹⁵. The detailed numbers were indicated in figure 4.

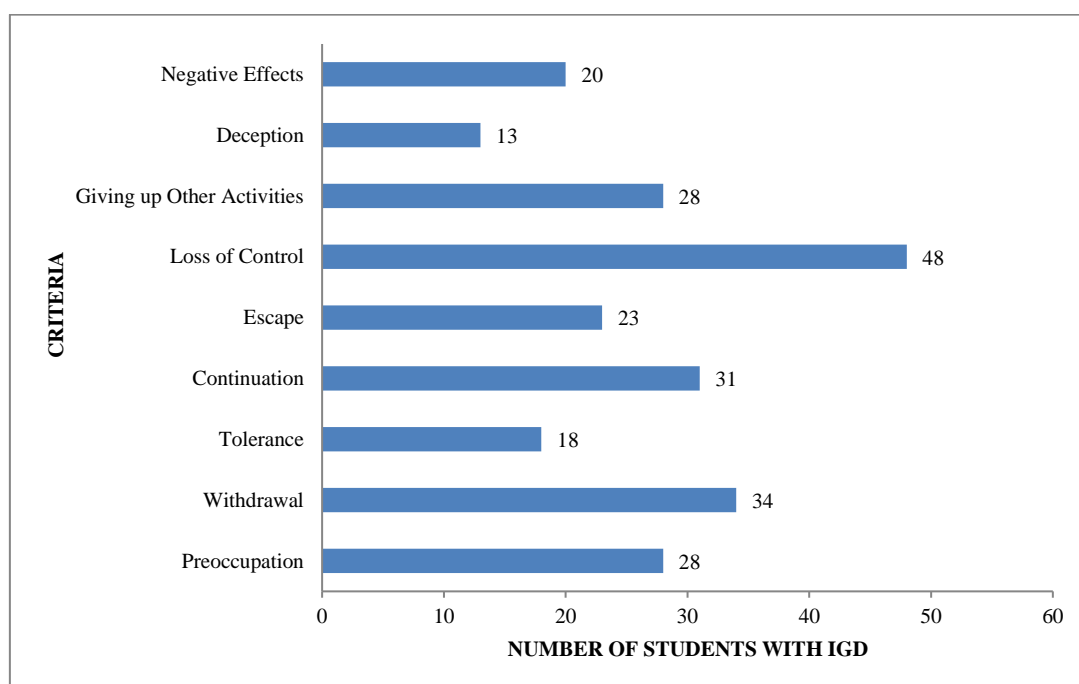


Fig 4: Criteria Endorsement in Students with IGD

Conclusion

From the current study, it was found that 21.60% of the study population have been suffered with internet gaming disorder. Thus from the present study it was concluded that the survey conducted on internet gaming disorder revealed that 91.02% of students were addicted to play games in their mobiles with serious loss of control and suggestion should be made to APA that this internet gaming disorder should be included in DSM-V.

Abbreviations

American Psychiatric Association (APA), Diagnostic and Statistical Manual of Mental Disorders (DSM), Institutional Ethics Committee (IEC), Internet Gaming Disorder (IGD), Personal Computer (PC), World Health Organization (WHO).

Conflict of Interest

The authors declare no conflict of interest.

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