

Original Research Article

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Comparative evaluation of internet addiction amongst arts, commerce, engineering and medical students

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ABSTRACT

Background: With the advancement of technology across the world web and information have been interlinked. Internet is one of the channels for communication at a large platform just with a click and scrolling by fingertip. It is an impulsive disorder, which does not involve use of an intoxicating drug. When need get converted to demand we get addicted. Addiction causes depression, anger, loneliness and other medical problems too. Considering its variable use among different professionals, present study has been conducted to assess the level of addiction among young professional students of Raipur Chhattisgarh.

Methods: Ethical approval for this study (N- ADMIN/261-B/2019) was provided by the institutional ethical committee Raipur institute of Medical Sciences (RIMS) Raipur on 11/07/2019. This was a cross-sectional observational study done in Raipur which included 160 (Purposive samples) students of 18-30 years from arts, commerce, engineering and medical colleges. The study duration was of two months (15 July 2019- 15 September 2019). Predesigned pretested structured questionnaire (Young's internet addiction test) was done using multistage simple random sampling.

Results: Prevalence of addiction is 65% (104/160). Mild, moderate and severe are 38% (62/160), 21.9% (35/160), 4.4% (07/160) respectively. Among severely addicted maximum 12.5% (05/160) belong to engineering stream.

Conclusions: Male are more addicted than female and engineering streams are affected more severely.

Keywords: Addiction, Internet, Professional students, Raipur

INTRODUCTION

With the advancement of technology across the world web and information have been interlinked. Internet is one of the channels for communication at a large platform just with a click and scrolling by fingertip. It is an impulsive disorder, which does not involve use of an intoxicating drug and is very similar to pathological gambling. When need get converted to demand we get

addicted. The internet use has increased very rapidly around the world in the recent past and contributing to quantify the world as a 'global village'.¹ According to Young, internet addiction is characterized by preoccupation with the internet, an inability to control the use, hiding about behaviour, psychological withdrawal, and continued use despite behavioural consequences.² Problematic internet use has negative impacts on different aspects of life such as academic, financial, occupational

and relationships.³ Excessive internet addiction is also associated with social and psychological and medical problems. The prevalence of internet addiction varies from 1.5% to 25% in different populations.⁴⁻⁷ considering its variable use among different professionals; present study has been conducted to assess the level of addiction among young professional students of Raipur Chhattisgarh.

METHODS

This was a cross-sectional observational study done in Raipur which included 160 (purposive samples) students of 18-30 years from arts, commerce, engineering and medical colleges. The study duration was of two months (15 July 2019- 15 September 2019). Predesigned pretested structured questionnaire (Young's internet addiction test) was done using multistage simple random sampling.⁸

Ethical approval for this study (N- ADMIN/261-B/2019) was provided by the Institutional Ethical Committee (IEC) Raipur institute of Medical Sciences (RIMS) Raipur on 11/07/2019.

All subject who are willing to participate in study and give valid consent without compulsion were included in the study. All subject who are not willing to participate in study and have not given valid consent and all those who are absent at the time of assessment were excluded from the study. Informed written consent obtained from subject prior to participation.

Statistical analysis

Data were analyzed using Microsoft office Excel and chi-square used as test of significance. Young's tool has 20 questions and scoring system, each question is based on scoring system. At last all the score have been summed up and addiction on the basis of final score is evaluated. Normal (0-30), mild (31-49), moderate (50-79), and severe (80-100).

RESULTS

Present study showed prevalence of addiction is 65% (104/160). Mild, moderate and severe are 38% (62/160), 21.9% (35/160), 4.4% (07/160) respectively. Among the 160 enrolled participants, 50% (80) are males and 50% (80) are female respectively. Among male maximum 23/160 (14%) belong to engineering stream whereas among female maximum 24/160 (15%) from arts field (Table 1).

There are 4 grades of internet addiction i.e. normal, mild, moderate and severe and association between stream and level of internet addiction is calculated by Chi square test. Among 40 arts students 11 (27.5%) have mild addiction, 7 (17.5%) have moderate addiction and none of them have severe addiction.

Among 40 commerce students 19 (47.5%) have mild addiction, 4 (10%) have moderate addiction and 1 (2.5%) has severe addiction. Among 40 engineering students 17 (42.5%) have mild addiction, 12 (30%) have moderate addiction and 5 (12.5%) have severe addiction. Among 40 medical students 15 (37.5%) have mild addiction, 12 (30%) have moderate addiction and 1 (2.5%) has severe addiction. there is a significant association between level of addiction and streams as $p<0.05$ and $\chi^2=25.744$ (Table 2).

Table 1: Gender and stream-based distribution of study subject.

Stream	Gender		Total
	Male N (%)	Female N (%)	
Arts	16 (10)	24 (15)	40 (25)
Commerce	21 (13)	19 (12)	40 (25)
Engineering	23 (14)	17 (11)	40 (25)
Medical	20 (12.5)	20 (12.5)	40 (25)
Total	80 (50)	80 (50)	160 (25)

Table 2: Distribution of level of addiction with streams.

Streams	Level of addiction				Total N (%)
	Normal, N (%)	Mild, N (%)	Moderate, N (%)	Severe, N (%)	
Arts	22 (55)	11 (27.5)	7 (17.5)	0 (0)	40 (100)
Commerce	16 (40)	19 (47.5)	4 (10)	1 (2.5)	40 (100)
Engineering	6 (15)	17 (42.5)	12 (30)	5 (12.5)	40 (100)
Medical	12 (30)	15 (37.5)	12 (30)	1 (2.5)	40 (100)
Total	56 (35)	62 (38.8)	35 (21.9)	7 (4.4)	160 (100)

Chi square test (χ^2) = 25.744, $p<0.05$, $\chi^2=25.744$, $df=9$, statistically highly significant.

In arts stream, 4/22 (18.20%) males and 18/22 (81.80%) females lie in normal range, 5/11 (45.5%) males and 6/11 (54.50%) females have mild addiction, 7/7 (100%) males and none of the females are moderately addicted, and none of them have severe addiction (Figure 1). In

commerce stream, 10/19 (52.60%) males and 9/19 (47.40%) females have mild addiction, 4/4 (100%) males and none of females are moderately addicted, and 1/1 (100%) males has severe addiction while none of females show severe addiction (Figure 2). In engineering stream, 9/17 (52.90%) males and 8/17 (47.10%) females have

mild addiction, 7/12 (58.30%) males and 5/12 (41.70%) females are moderately addicted, and 3/5 (60%) males and 2/5 (40%) females have severe addiction students (Figure 3). In medical stream, 7/15 (46.70%) males and 8/15 (53.30%) females have mild addiction, 9/12 (75%) males and 3/12 (25%) females are moderately addicted, and 1/1 (100%) males has severe addiction while none of females show severe addiction (Figure 4).

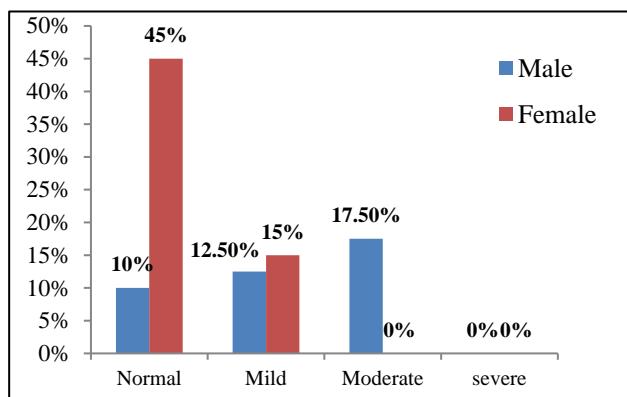


Figure 1: Gender wise distribution of level of addiction among arts students (n=40).

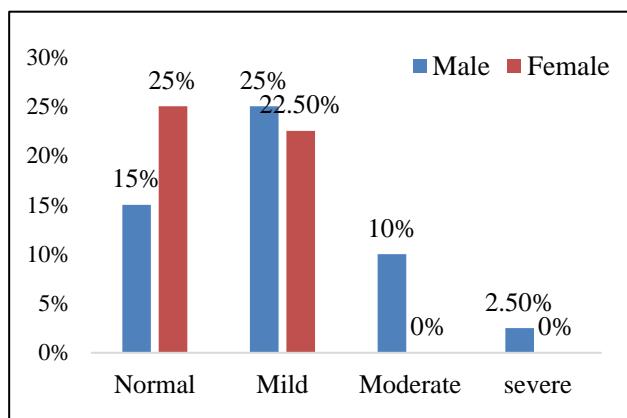


Figure 2: Gender wise distribution of level of addiction among commerce students (n=40).

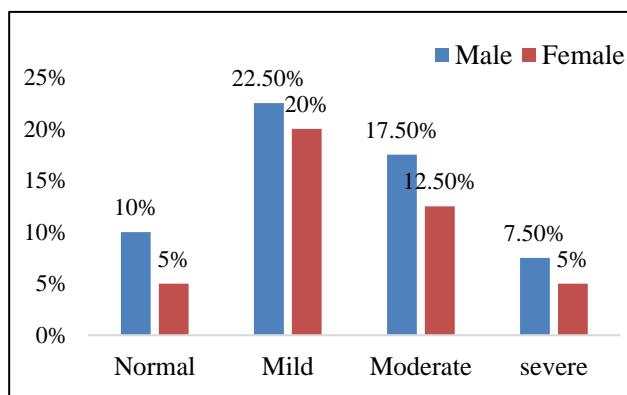


Figure 3: Gender wise distribution of level of addiction among engineering students (n=40).

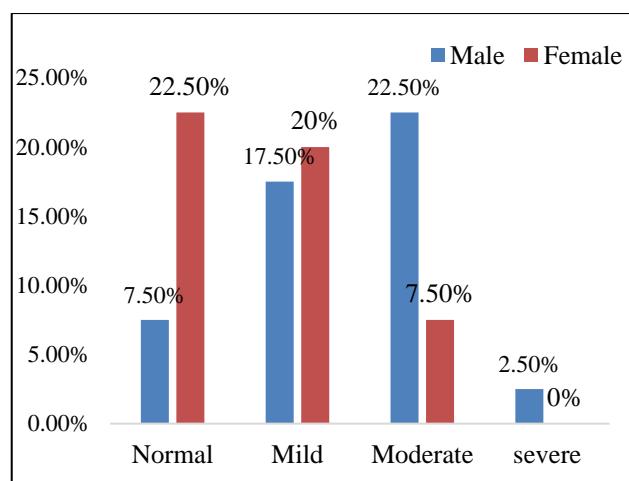


Figure 4: Gender wise distribution of level of addiction among medical students (n=40).

DISCUSSION

Globally, the number of internet users has crossed the three-billion mark, while in India users grew over 17% in the first 6 months of 2015 to 354 million.⁹ An article published way back in The Guardian in March 2008 said “Addiction to internet 'is an illness' and evidence shows that heavy users suffer isolation, fatigue and withdrawal symptoms.¹⁰ Present Study shows equal percentage of both gender. Kannan et al found among 201 study subjects, 127 (63.2%) were males and 74 (36.8%) were females.¹¹ Present study showed prevalence of addiction is 65% (104/160). Mild, moderate and severe are 38% (62/160), 21.9% (35/160), 4.4% (07/160) respectively. Similar study by Sharma et al revealed 35.0% as mildly addicted, 7.4% moderately, and 0.3% as severely addicted.¹² Jain et al observed the prevalence of internet addiction was 93.3%. 38.7% had mild internet addiction, 49.3% had moderate internet addiction and 5.3% had severe internet addiction.¹³ Present study stated that males are more addicted to internet than females. Similar finding observed by Sharma et al where 55% subject were male. The mean age of the students was 19.02 (± 1.450) years and Kannan et al where male were more addicted to the internet than female 22.8% and 8.1% respectively.¹¹⁻¹² Another study also observed that addiction was more common in males than in females.¹⁴ Anand et al, observed among the total (n=1763), 27% of medical students met criterion for mild addictive internet use, 10.4% for moderate addictive internet use, and 0.8% for severe addiction to internet.¹⁵ Present study shows in medical stream, 7/15 (46.70%) males and 8/15 (53.30%) females have mild addiction, 9/12 (75%) males and 3/12 (25%) females are moderately addicted, and 1/1 (100%) males has severe addiction while none of females show severe addiction. According to Niranjan et al, in a study done in private medical college students among 200 study participants, 93.5% were using smartphone to access internet. More than half (53.5%) of the study participants were average internet users and 33 (16.5%) were possible internet addicts.¹⁶

Present study too has got results in concordance to this study that severe addiction in commerce and medical stream was 1/40 (2.5%) in males and that in engineering students was 3/40 (7.5%) in males and 2/40 (5%) in females. We also found 1/40 (2.5%) severe addiction in medical students. Firouzehsepehrian et al found in their study in Urmia Universities demonstrated that the prevalence of internet addiction among students in Urmia was 16/36, more among boys (8/2) than girls (14/8), and more in science and engineering students (7/90) than arts and humanities students (9/3).¹⁷ There was a significant difference amongst four groups in anxieties ($p<0.0005$). Present study has got results in concordance to this study that internet addiction was more in science and engineering stream as compared to art and humanity students. According to study by Kumar et al, excessive internet users were more in commerce and humanities as compared to science and majority of science students were normal users.⁹ Present study has got results contrary to this study which might be due to different sample size and region of study. Asiri et al, in their study points out that males are more efficient at using internet, receive lesser supervision by parents and end up using internet more for entertainment needs in comparison to females which increases their potential risk for internet addiction.¹⁸ In another study by Salubi et al of all subject 282 (72.3%) of the respondents indicated that they make use of the internet daily with 34.8% spending more than 10 hours.¹⁹ Patel et al observed that out of total 172 participants, 5.73% of students had internet addiction. More than half of the students with internet addiction were using internet for 5 years or more. More than 85% of the students with internet addiction did not perform any daily exercise/sports, were spending more than 2 hours in a day, and had high levels of perceived stress.²⁰ In another study, 108/200 (54%) were male and 92/200 (46%) were female. The prevalence of whatsapp addiction among medical students is 51%. In spite of knowing the harmful effect of whatsapp usage, 32.5% of them are using it and unable to control it.²¹ It further gives a way to assess the correlation between psychological disorder and other medical disorder developed due to internet addiction which has not been done in this state to gain deeper and better insight into the issue so that this disorder can be tackled earlier and efficiently.

CONCLUSION

Current study observed that more addiction in engineering and medical field as compared to commerce and arts stream. This may be due to their easy accessibility to internet as a part of their academics. Males are more addicted than females. As study revealed, addiction is more in engineering and medical stream and in male students that may lead to psychological and medical disorder. So they need to change their life style and awareness should be created by IEC regarding this silent addiction that is extending its arm to trap the youth. Further present study gives way to

research for correlation between internet addiction and psychological and medical disorder.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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