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The role of Internet and its addiction among medical students in a tertiary care teaching hospital

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ABSTRACT

Background: India is now one of the world's largest national digital population. Internet is a tool for any person for communication and connection with coworkers.

Aims: The role of internet and its addiction among medical students in a tertiary care teaching hospital.

Materials and Methods: A cross-sectional study was conducted among medical students (n = 300) to assess the pattern of internet usage. A semi-structured proforma along with Young's Internet Addiction scale was used.

Results: Out of 300 medical students, 62% were females and 38% were males. The users were divided into groups: 64.6% as average users, 12% as possible addicts, 2.3% as addicts, and in 21% of medical students internet usage was less than average user. Significant usage differences were evident based on the gender of user. Medical students used the internet mostly for non-academic purposes (76.7%) and for academic purposes (23.3%). About 80.7% of the medical students were using mobile phones to access the internet. Conclusion: Internet usage for the non-academic purpose (Facebook, WhatsApp, Mails etc.) was very high among the medical students. Availability of high speed internet on mobile phones may be the reason for spending more time on social network websites.

KEYWORDS : internet addiction, medical students, mobile phones

Introduction

Internet is a global system that is increasingly used by all people as one of the most important devices for access of information in the world [1]. Internet Addiction Disorder (IAD) ruins lives by causing neurological complications, psychological disturbances, and social problems. Surveys in the United States and Europe have indicated alarming prevalence rates between 1.5% and 8.2%, respectively [2] The term "internet addiction" was proposed by Dr. Ivan Goldberg in 1995 for pathological compulsive internet use.[3] The number of internet users in India has grown five-fold since 2005. Mobile Internet usage is growing at the rate of nearly 85% per

annum, with nearly 75% of non-voice usage being devoted to entertainment, where video and music streaming are major growth activities.[4] Recent reports indicated that some online users were becoming addicted to the Internet in much that same way that others became addicted to drugs or alcohol,

which resulted in academic, social, and occupational impairment.[3] In a study done in Iran, severe internet addicts used it for nonessential uses like film, music, cartoon, computer games, social sites and chat rooms, but normal users use it for news, events, educational, and universal sites. Furthermore, internet addicts use internet in a drift manner and in private places.[5] In India, use of internet is enormous, especially in the young population.[6]

Materials and Methods

A cross-sectional survey was carried out in medical students of tertiary care teaching hospital. The study period was from June-August 2015. The study participants were selected by using simple random sampling. Institutional Ethical Committee approval was obtained before starting the study.

Inclusion Criteria

1. Medical students.
2. Both sexes.
3. Students aged between 17 and 25 years.
4. History of using internet from past 1-year or more.
5. Willing to give consent.

Exclusion Criteria

1. Not willing to give valid consent.
2. Not using internet.

The information was collected by using a semi structured proforma that contained details of demographic data, purpose of using the internet (by choosing among the

options such as education, online games, social networking or downloading media files), gadget used to access internet

(Desktop, Laptop, Mobile phone or Tablet), and the average duration of usage per day. Data were tabulated by using Microsoft office — Excel sheet. The responses obtained were expressed in proportions. The difference in the patterns of internet usage among males and females was analyzed by

using Chi-square test. Measuring internet addiction was a challenge. Goldberg developed the IAD(internet addiction disorder) scale by adapting the DSM-IV[7]. Brenner developed the Internet Related Addictive Behavior Inventory comprising of 32 true and false questions. Young initially developed eight questions Internet Addiction Diagnostic Questionnaire based on DSM-IV.[Diagnostic and Statistical Manual of mental disorders]. Later, she included 12 new items in addition to the 8 items to formulate an IAT(internet addiction test). Young's IAT is the only available test whose psychometric properties have been tested by Widyanto and McMurran.[8]

The IAT is the first validated instrument to assess internet addiction. The IAT is a 20 item, 6 point Likert scale with scores ranging from 0 to 5 for each item, which measures the severity of self-reported compulsive use of the internet.[3] Total internet addiction scores were calculated, with possible scores for the sum of 20 items ranging from 0 to 100 (Annexure). The scale showed very good internal consistency, with an alpha coefficient of 0.93 in the similar studies.[6]

Results

The study questionnaire was obtained from 300 medical students. Among these 186 (62%) were females and 114 (38%) were males. The subjects belonged to different levels of medical course. Using Young's original criteria, the users were divided into groups as average users (64.6%), possible addicts (12%) and addicts (2.3%). The internet usage was less than an average user in 21% of medical students [Table 1]. About 80.7% of the medical students were using mobile phones to access the internet most of them used for non academics.[Table 2]. Majority of the medical students (80.7%) were using internet daily around 1-4 hrs. .[Table 3]

Discussion

The rate of Internet surfing for males is higher than that for females. Findings from a study conducted by Pew Internet and American Life Project on college students' use of the Internet revealed that this group heavily uses the Internet when compared to the general population.[9]

In our study, the prevalence of internet addiction was 2.3%.In contrast to our results, a study done by Ghamari et al.,[10] among Iranian medical students, shown the overall prevalence of internet addiction was 10.8% and similar findings were observed in the study done by Siomos et al.,[11] on Greek adolescent students, where the prevalence rate was 8.2%. In our study, moderate users and the possible addicts used the internet mostly for non academic purpose (78.9%), which was essential for medical students. Similar findings were observed in a study done by Goel et al.[12] .In our study, lower prevalence of "internet addiction" was observed when compared to Grover et al.,[13] In the present study, it is found that, the medical students were using internet mainly for non academic purposes (social networking, online games) rather than for academic purposes

Conclusion

Internet addiction among medical students is very high. Availability of high speed internet on mobile phones may be the reason for spending more time on social network websites. Try to educate the students to use internet meaningfully and appropriately for academics.

Table 1: Gender wise distribution of IAT scores

Score	Pattern	Number of males (n=114)	Number of Females (n=186)	Total (n=300)
0-19	Less than average	18(15.7)	45(24.2)	63(21)
25-49	Average online user	82(71.9)	112(60.2)	194(64.6)
50-79	Possible addict	10(8.8)	26(13.9)	36(12)
80-100	Addict	4(3.5)	3(1.6)	7(2.3)

Figures given in parentheses indicate percentages. IAT: Internet addiction test

Table 2: Purpose and gadget to access internet

Purpose	Number of males (n=114)	Number of Females (n=186)	Total (n=300)
Academics	24(21.1)	46(24.7)	70(23.3)
Non-Academics (others)	90(78.9)	140(75.3)	230(76.7)
Gadgets			
Mobiles	96(84.2)	146(78.5)	242(80.7)
Others	18(15.7)	40(21.5)	58(19.3)

Figures given in parentheses indicate percentages. IAT: Internet addiction test

Table 3: Duration of Internet Usage

Internet Usage (Daily usage in Hrs)	Total(n=300)	Percentage
<4	242	80.7
4-8	36	12
8-10	22	7.3
Exposure to internet in Years		
<1	56	18.7
1-5	211	70.3
>5	33	11

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