

INTERNET BEHAVIOUR PATTERN IN UNDERGRADUATE MEDICAL STUDENTS IN MANGALORE

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Abstract: Considering the explosive growth in internet use among medical students in India, this study aimed to determine the prevalence of internet addiction in undergraduate medical students. This cross-sectional study involved 90 subjects (18-20 years of age) selected by random sampling from the first year undergraduate medical student population at Kasturba Medical College Mangalore. Young's Internet addiction test questionnaire was administered. Based on the scoring, subjects were classified into normal users (score <20), mild (score 20-49), moderate (score 50-79) and severe (score >79) internet addiction groups. The prevalence of internet addiction (moderate and severe) was determined to be 18.88%. Majority (57.77%) conformed to mild addiction. The most common purpose for internet use was found to be social networking (97.8%), followed closely by e mailing (87.8%). The prevalence of moderate to severe internet addiction appeared to be low, a significant number of students conform to mild addiction.

Keywords: Internet use, Addiction, Prevalence, Medical students, social networking.

I. INTRODUCTION

Internet is increasingly having more influence on all aspects of the society as it has become an integral part of the daily lives of people in the modern era. Internet use has significantly increased globally and in India. Due to the advanced development of network construction in universities, the number of Internet-using university students is increasing. A series of problems resulting from the misuse of Internet accompanying the excessive use of Internet, arouse attentions of researchers all over the world [1- 3]. In fact, Younger Internet users (i.e., between 18 and 24 years old) were more at risk of becoming Internet addicts than older users [4]

Internet use is a way to adapt or cope to overwhelming developmental stressors [5]. Psychological and environmental factors in the lives of college students may leave them disproportionately vulnerable to Internet addiction [6-7]. Developmental stressors, coupled with free access to Internet services, may contribute to college student's vulnerability to Internet behavior dependence [8-9]. Two particularly maladaptive outcomes of college student internet use include face-to-face social contact with online social experiences and identity formation with pseudo-identities online [10]. Research indicates that Internet addiction is often associated with other forms of mental distress such as depression, impulse control disorder, and low self-esteem [7]. Greenfield suggested that as many as 6% of Internet users may suffer negative outcomes such as marital disruption, decreased school performance, increased financial expenditures on Internet shopping, or illegal activity [11].

Considering the explosive growth in internet use among university students, it is important to study internet behaviour patterns in this subset of population. Medical students are a particularly vulnerable group on account of the time they spend on the internet. In the Western countries and in South East Asian countries, several studies have focussed on internet behaviour patterns in adolescents [12-15]. However, there is a paucity of such studies in India. The present study aims to determine the prevalence of internet addiction and to study the internet behaviour pattern in a sample population of undergraduate medical students.

II. MATERIALS AND METHODS

This cross-sectional study was carried out on undergraduate medical students from KMC Mangalore. Both male and female undergraduate medical students in the age group of 18-20 years, conforming to internet use for the last 6 months or more, were enrolled into the study. A total of 90 student volunteers were thus selected by random sampling by computer generated numbers. The present study was approved by the research ethics committee. Each Subject was briefed in detail about the nature and purpose of the study. Confidentiality was assured and informed consent was taken. Two questionnaires were administered to the subjects. One was a general questionnaire pertaining to demographic details, duration of internet use and lifestyle. The second was the Young’s Internet Addiction Test [16]. This includes 20 questions with a scoring of 0-5 for each question and a total maximum score of 100. Based on the scoring, subjects were classified into normal users (<20), mild (20-49), moderate (50-79) and severe (>79) internet addiction groups. Mild addicts were classified as problematic internet users while moderate and severe addiction groups were categorized as internet addicts. Data was recorded and managed on Microsoft Excel and the prevalence of internet addiction was calculated. Statistical analysis was done using the SPSS version 16. Mean and standard deviation were calculated for the continuous variables and frequencies, and percentages were computed for the discontinuous variables.

III. RESULTS

Table 3.1: Baseline parameters of internet users (n=90)

	Mean	Standard deviation
Age of subjects (years)	18.49	0.71
Duration of internet use (years)	6.46	2.31
Duration of internet use per day (hours)	2.10	1.19

In the present study out of the 90 internet user subjects, 34(37.8%) were males and 56(62.2%) were females. The mean age of the sample was 18.49 (\pm 0.71) years. The mean duration of internet use was 6.46 (\pm 2.31) years. The average daily time spent on the internet was 2.10 (\pm 1.19) hours. (Table 1)

Table 3.2: Analysis on frequency of internet behaviour of internet users (n=90)

Purpose For Internet Use	Number	Percentage
Social Networking	88	97.8
News	57	63.3
Entertainment	74	82.2
Online Chatting	59	65.6
Online Games	26	28.9
Blogging	6	6.7
Educational	74	82.2
E Mail	79	87.8
Others	8	8.8

The most common purpose for internet use was found to be social networking (97.8%), followed closely by e-mailing (87.8%). (Table 2)

Table3. 3: Analysis on prevalence of internet addiction in internet users (n=90)[Score <20: normal internet users, score 20-49: mild internet addicts, score 50-79: moderate internet addicts, score >79: severe internet addicts]

Internet Addiction Test Score	Number	Percentage
<20	21	23.33
20-49	52	57.77
50-79	17	18.88
>79	0	0

The internet addiction test scoring revealed 21 (23.33%) as being non problematic users (score <20), 52 (57.77%) as cases of mild internet addiction (score 20-49), 17 (18.88%) as moderate internet addiction (score 50-79) and none as severe internet addiction (score >79). (Table 3)

IV. DISCUSSION

This study is a preliminary study of internet behaviour pattern in a sample representing undergraduate university students. This study estimates the prevalence of internet addiction (representing moderate and severe addiction) at 18.88%, which is in accordance with most studies that have assessed the prevalence of internet addiction based on Young's internet addiction test. A study on medical students in China reported a prevalence of 16.2% [17]. A recent Indian study on students in Mumbai reported the prevalence at 0.7% [9]. The reasons for this variability in prevalence rates could be the heterogeneity of the subject population, the influence of confounding factors such as stress and psychological morbidity and a difference in the evaluation methodology of studies. The results of the present study identified social networking, e mailing, entertainment and educational pursuits as the most frequent purpose for internet use. Multiple reasons could be attributed to this behaviour. Moving away from family and home to a new environment could contribute to seeking online companionship. Apart from this academic pressures, boredom and the lack of time and opportunity to pursue hobbies could also contribute to the internet addiction behavior.

V. CONCLUSION

This study identifies internet addiction as an entity of concern among medical students. It is therefore recommended that measures should be taken to promote awareness of problematic internet use and develop a healthy internet culture. Initiative must be taken to create opportunities for recreation, relaxation and extracurricular activities. Awareness should be created among the students to improve ability to reduce the occurrence of internet addiction behaviour promoting their healthy growth

VI. LIMITATIONS OF THIS STUDY

The sample size was small and may therefore not accurately reflect the prevalence of internet addiction in the undergraduate medical student community as a whole. Being a cross sectional study, the study is not complete in itself. An initial evaluation and scoring with a prospective follow-up would be an ideal study design. Questions in both the questionnaires are subjective. For instance, the study does not differentiate between compulsive use of the internet for a specific purpose and non compulsive use. Also, the pattern of internet use may vary over a given time frame and this is not taken into consideration in the test.

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