Study of Prevalance of Internet Addiction among Professional Students

S. Sarathkrishna[1], Padmavathi D[2], Shaik Mohammed Shahid Basha[3], P. Lakshmiprasuna[4], Joan Stephenovana[5]

[1]Assistant Professor, Department of Psychiatry, ACSR Government Medical College, Nellore, Andhra Pradesh, India

[2]Associate Professor, Department of Psychiatry, ACSR Government Medical College, Nellore, Andhra Pradesh, India

[3]Assistant Professor, Department of Psychiatry, Government Medical College, Kadapa, Andhra Pradesh, India

[4]Professor and HOD, Department of Psychiatry, ACSR Government Medical College, Nellore, Andhra Pradesh, India

[5]Assistant professor, Department of Psychiatry, Government Medical College, Kadapa, Andhra Pradesh, India

Abstract:

Background: Internet is an essential tool in day to day life whose impact is high on college students such as increased use of Internet. It is associated with changes in mood, inability to control amount of time spent, withdrawal symptoms, decreased social life, self-esteem and adverse work and academic consequences.

Objective: The objective of the study is to explore the internet use and pattern of usage among professional students.

Methodology: Total of 500 professional students was selected from different colleges through random sampling. Young's internet addiction scale was used to assess the prevalence of internet addiction.

Results: Prevalence of internet addiction is high among professional students, more in engineering students.

Conclusion: Current study documents a high prevalence of internet addiction among professional students.

Keywords: Internet, Addiction, Professional Students.

Introduction

The internet is a new tool that is evolving into an essential part of everyday life all over the world and its use increases especially among young people [1]. There has been an explosive growth in the use of internet not only in India but also worldwide in the last decade. As of March 2020, approximately 4.57 billion people worldwide were using the Internet, with around one million new users daily. [2] The internet has become an integral part of life, and currently, India is the second-largest internet user globally.

Internet and broadband penetration in India is increasing steadily, with 665.31 million internet users in 2019.[3] The internet is used by some to facilitate research, to seek information, for interpersonal communication, and for business transactions. On the other hand, it can be used by some to indulge in pornography, excessive gaming, chatting for long hours, and even gambling. In spite of the widely perceived merits of this tool, psychologists and educators have been aware of the negative impacts of its use, especially the over or misuse and the related physical and psychological problems (Greenfield, 2000)[4]. One of the most common of these problems is internet addiction [4-6]."

WHO included internet gaming disorder in the chapter of substance and behavioral addiction in the 11th edition of the International Classification of Diseases and Related Health Problems (ICD-11).[5] At present, there are many uncertainties regarding the conceptualization of IA as a disorder, including internet gaming disorder.[5] However, most scholars describe IA as an impulse control disorder characterized by excessive or poorly controlled preoccupations, urges or behaviors regarding computer use and internet access that lead to impairment or distress. [6] Multiple scales, questionnaires and instruments are developed over time to measure IA. But the most commonly used reliable scale is the Internet Addiction Test (IAT) developed by Young. The scale consists of 20 items

rated on a 5-point Likert scale yielding a total score with a range of 20 to 100. [7] Prevalence of IA has been in rising trend over few years worldwide. Previous studies have confirmed that the prevalence rate falls somewhere between 3.5% and 58% [7-9].

The excessive growth of the internet has a huge influence on psychological research in understanding its role in emotional states and there has been increased interest in the addictive potential of the internet [10]. Among these factors the most 2 remarkable are depression, anxiety, and stress. Other conclusions of excessive usage have been documented as neglect of academic, work, and domestic responsibilities, disruption of relationships, social isolation, and financial problems [11].

They believe that the internet may serve as an important developmental element in emerging adulthood, particularly in social interactions, discovery and communication [12]. IA can reduce the young generation's productivity and cause cognitive dysfunction, poor academic performance and physical, mental and behavioral disturbances. [10] Therefore, it is imperative to estimate IA's magnitude among the Indian college students to obtain accurate epidemiological data to develop different strategies and programmers to intervene with this problem.

Methodology

Study settings: 250 medical students from Government Medical College and 250 Govt engineering professional college students from Nellore, Andhra Pradesh.

Study sample: All those subjects selected for the study as per inclusion criteria.

Type of Study: Cross sectional.

Duration of Study: 6 months (August 2023-January 2024)

Inclusion Criteria: Medical and Engineering students aged 18 yrs-30 yrs. Students who agreed to give written informed consent.

Exclusion Criteria: Students with history of any substance dependence or with history of known debilitating medical illness leading to restricted life style.

Measures/ Instruments: The Internet Addiction Test: Internet addiction was measured using Young's Internet Addiction Test, designed by Dr Kimberly S Young. The Internet Addiction Test (IAT) is the first validated instrument to assess Internet addiction. The psychometric properties of the IAT show that it reliable and valid measure that has been used in further research on Internet addiction. The test measures the extent of client's involvement with the computer and classifies the addictive behaviour in terms of mild, moderate, and severe impairment. The IAT can be utilized among outpatient and inpatient settings and adapted accordingly to fit the needs of the clinical setting. The IAT has also been translated in several languages including Chinese, Korean, German, and Portuguese making it the first global measure. It is a 20 items rated on a 5 point likert scale. Scores range from 30 to 100 and the higher the score indicates the greater the level of addiction. Young suggests ranges of scores that indicate whether the internet user has complete control over internet use (0-30) or is an average user (30- 49), whether the user has frequent problems related to internet usage (50-79), and whether internet user significantly interferes with the user's life (80-100).

Procedure:

Prior to the undertaking of the study, ethical committee approval was obtained. The researchers introduced the purpose of the study to students and explained how to respond to the questionnaire. They also explained that the data would be used solely for the purpose of the study and that their privacy and anonymity would be fully protected. After obtaining written consent from the students, they were asked to fill the Young's IAT questionnaire in a self-reporting format. Each student was given 20 min to complete the questionnaire.

Prevalence of internet addiction was assessed in both engineering and medical groups. All the data collected were analyzed using SPSS-20.0 Version. Descriptive analyses were performed on all variables. Frequencies and unpaired two sample t test were used to determine the prevalence of Internet Addiction among Engineering and Medical groups and other variables. Addiction was compared in both the groups. If P< 0.05 then there was significance of the association between the different variables. 26 Students with psychiatric morbidity were referred to Department of Psychiatry for treatment and follow up was advised.

Ethical Issues: Informed consent was obtained. Confidentiality of the individual's information was maintained. Subjects had the right to withdraw consent at any stage.

Results

Internet Addiction Prevalence: Among 250 medical students, 109(43.6%) scored above 30 on the Young's IAT, testing positive for internet addiction, while 141(56.4%) scored below 30, testing negative for internet addiction.

Out of 250 Engineering students,136(54.4%) scored above 30 on the Young's IAT and thus had internet addiction, remaining 114(45.6%) had no internet addiction having score less than 30.

Overall prevalence is 54.4% in engineering students and 43.6% in medical students. Hence, IA is more prevalent among engineering students compared to medical students. When severity was compared by using two sample t test no statistically significance was observed with (p value =0.971).

Table 1: Prevalence of Internet Addiction among Engineering and Medical Students

Engineering Students			
	No of Students	Mean(SD)	
IA	136	46.07 (12.59)	P value 0.01
NA	114	17.25(8.02)	
Medical Students			
IA	109	46.13 (12.01)	P value =0.01
NIA	141	17.08 (5.86)	

Table 2: Comparison of Prevalence of IA among Students

Students	IA (n, %)	NIA (n, %)	Total	
Engineering	136(54.4)	114(45.6%)	250(100)	P value 0.0157
Medical	109(43.6)	141(56.4%)	250(100)	

The prevalence is more among engineering students than medical students which is statistically significant. Chi square statistic is 5.834. p value is 0.015

Table 3: Comparison of Prevalence among Engineering and Medical Students IA (N)

	IA (n)	Mean	SD	T-statistic	95% CI	P-Value
Medical students	109	46.13	12.01	0.036	-3.21 to 3.33	0.971
Engineering students	136	46.07	13.59			

Internet addiction prevalence was high in engineering students (54.4%) compared to medical students. The mean scores of internet addiction of both groups were compared. Mean score of IA medical student's and IA engineering students were 46.13 and 46.07 respectively. Unpaired sample t test was done and there was no significant difference in the severity of internet addiction among two groups with p value 0.971.

Severity of Internet Addiction

Of the 109 Internet addicted Medical students, 78(31.2%), who scored between 30 to 49 were mildly addicted, 31(12.4%) who scored between 50 – 79 were moderately addicted while none of them scored greater than 90.

Among 136 Internet addicted Engineering students, 95 (38%) students had mild Internet addiction (with score 30-49) while 40(16%) had moderate addiction (with score 50-79) and 1 (0.4%) student had severe addiction (with score above 90).

Table 4: Prevalence of Internet Addiction Based On Severity:

	Medical students	Engineering students
Mild	78(31.2)	95(38)
Moderate	31(12.4)	40(16)
Severe	0	1(0.4)
Total	109	136

Discussion

The present study was done among professional students i.e. Engineering and Medical College undergraduate students, covering 250 subjects in each group, with an objective to assess and compare the prevalence of internet addiction and psychiatric morbidity in relation to Internet addiction among two groups.

Subjects were aged between 18 to 30 years, gave written informed consent for the study. Those subjects with history of any substance dependence and chronic debilitating medical illness leading to restricted lifestyle were excluded. Prevalence among two groups was assessed by using young's internet addiction test.

Prevalence of IA among students: Prevalence of Internet addiction in this study among medical students was 43.6% and among engineering students was 54.4%.

Severity of IA in students: In our study, 78(31.2%) were mildly addicted and 31(12.4%) were moderately addicted, among 109 addicted medical students. However there were no students with severe IA. In engineering students, 95 (38%) engineering students had mild addiction, while

40(16%) had moderate addiction and 1 (0.4%) student had severe addiction.

The Prevalence of Internet addiction was more in engineering students (54.4%) when compared to Medical students (43.6%) in this study. There was no previous studies available comparing Internet addiction in medical and engineering students. Increased prevalence among engineering students may be due to increased need of internet and increased time spent on internet for academic and non-academic activities.

Limitations of the study

- Self-administered questionnaire was used, so there was possibility of identifying false reports.
- Study was conducted in a restricted convenient sample of MBBS & Engineering Undergraduate Students and hence results cannot be generalized
- Cross sectional study.
- Convenience sample was taken.

Conclusion

Intervention programs should be developed to prevent Internet addiction among adolescents, especially in schools, colleges and universities where adolescents spend most of their time. As these institutes are often on the frontline for the identification of potentially life threatening behaviors, it is important that health care professionals, be informed of problematic behaviors related to Internet overuse.

The rapid increase in prevalence of internet addiction may be because of increased access to gadgets and internet network; these current findings might change in future. This study is limited by its use of a convenience sample, but it still represents one of only a few studies on Internet addiction with psychological variables in South Indian students. Future studies should attempt to determine the predictive factors by identifying the causal relations between Internet addiction and the psychological characteristics adults and adolescents to prevent the occurrence of psychiatry morbidities.

References:

1. Nalwa, K. & Anand, A. Internet Addiction in Students: A Cause of Concern. Cyber Psychology & Behaviour, 2003; 6(6): 653-656.
2. Internet and Mobile association of India. I-Cube 2008 / 2010 Mar 12.
3. Telecom at a glance. Department of telecommunications: Ministry of communication, government of India. Available: https://dot.gov.in/ telecom-glance
4. Greenfield DN. Psychological characteristics of compulsive internet use: A preliminary analysis. Cyber Psychol Behav. 1999; 2:403-12.
5. Scutti S. WHO classifies 'gaming disorder' as mental health condition, 2018. Available:
6. Tao R, Huang X, Wang J, et al. Proposed diagnostic criteria for Internet addiction. Addiction. 2010;105:55664.
7. Young KS. Caught in the Net: How to Recognize the Signs of Internet Addiction and a Winning Strategy for Recovery. New York, NY, USA: John Wiley & Sons, Inc.; 1998.
8. Sadock BJ, Sadock VA.: Lippincott Williams and Wilkins; Kaplon and Sadock Comprehensive Textbook of Psychiatry 9th ed. Philadelphia; 2009; 1063–4.
9. Brenner V. Psychology of computer use: XLVII. Parameters of Internet Use, abuse, and addiction: The first 90 days of the Internet Usage Survey. Psychol Rep. 1997; 80:879–82.
10. Widyanto L, McMurran M The psychometric properties of the internet addiction test. Cyberpsychol Behav. 2004; 7:443–50.
11. Schuntermann MF. The duke health profile (DUKE) Rehabilitation (Stuttg). 1997;36:1–14.
12. Wang Q, Ren H, Long J, et al Reasearch progress and debates on gaming disorders. Gen Psychiatr. 2019; 32:3.