

Prevalence of internet addiction and its correlation with academic performance among pre-university students of selected college Belagavi – a cross sectional study

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ABSTRACT

Introduction: In this competitive world, life without an internet is unimaginable. Internet can be used for the work, entertainment, education and many other purposes. However, it is misused or abused especially among adolescents. Internet use is more in college, school and university students. **Objective:** To assess the prevalence of Internet Addiction (IA) and to find the correlation between IA and Academic Performance (AP). **Materials and Methods:** This study was conducted on 160-second year pre-university students studying in pre-university college. Sample size were calculated by simple random sampling. Written informed consent were obtained from students. Young internet addiction test 20 item questionnaire was introduced along with this last year internal assessments marks were obtained. Data were analyzed using SPSS software, Chi-square and correlation analysis. **Results:** Among the 160 students 83(51.9%) were males and 77(48.1%) were females. Internet addiction is more in males when compared to females. The prevalence of addiction to internet according to Internet Addiction Test (IAT) 39(24.4%) participants were found, as mild users. 103 (64.4%) participants were moderate users and 18 (11.3%) participants were found severely addicted to the internet. In terms of demographic characters, only gender was significantly associated to the level of addiction. There was significantly positive correlation found between IA and AP. **Conclusion:** Internet addiction is prevalent among pre university students. It is growing health problem among students. The challenge is to have a control of social-media and time spent online.

Keywords: Prevalence, Internet addiction, College students, Academic performance.

In India, there were nearly 262 million internet users, during 2016. This number is expected to rise up to 600 million internet users by the year 2021. India ranked second among internet

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users next only to China with the growth of 17% from the previous years. Internet penetration in India stood at about 10% in 2011.¹

Internet is well defined as a global network connecting millions of computers. Moreover 190 countries are linked into exchange of data, news and opinion.² there is literature stating that from 2011 to 2016 use of internet has increased, internet is now used for various reasons like education, entertainment, communication, easy relation with strangers, expression of other opinion etc.³

Internet addiction (IA) may be defined in a literature as “individual’s inability to control use of internet, which ultimately cause social, psychological or work complications in a person’s life.⁴ Goldberg coined the term “Internet Addiction (IA)” in 1995 for pathological compulsive internet use⁵. Young linked this unrestrained internet usage very minutely to pathological betting a disorder of impulse control in DSM IV (diagnostic and statistical management of mental disorder, 4th addition) and adapted this criterion to associate to internet use in the Internet Addiction Test (IAT) developed by Young⁶. The literature saying that there is negative impact of IA disorder by lack of standardization in this area. It has been generally accepted among researchers⁴.

Recently several studies have evaluated the correlation between Internet Addiction (IA) and Academic Performance (AP) among undergraduate, university and school students.^{7,8,9,10} According to Hassaan Rahanwad Ghulami evaluated internet dependence is affecting the academic success of the students.⁷ Difference in IA in terms of demographic factor⁸. Depression was found because of excessive use of internet⁹ and in another research, they concluded main purpose of internet use was only chatting.¹⁰

Objectives

Primary: To estimate the prevalence of Internet Addiction (IA) among pre-university students of a selected college of pre-university Belagavi.

Secondary: To evaluate if there is any relation between internet addiction and academic performance.

METHODOLOGY

A cross sectional study was conducted on pre-university students of Belagavi for 10 months period (2019). Sample size was calculated based on the study conducted to find the prevalence of internet addiction in Anand India¹¹. Total sample size was recruited 160 with 10% of allowable error and 34.5% of prevalence. Samples were enrolled in the study, which are selected from IInd PUC students by simple random sampling. There were 8 division in PUC second. From each division 20 participants were selected randomly.

Inclusion criteria:

1. Students of pre-university college.
2. Those who have been using the internet for last one year.

Exclusion criteria:

1. Those who do not give consent/assent
2. Those who are absent at the time of Data collection.

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Ethical consideration

Ethical clearance was obtained from Institutional Ethical Committee (IEC). Informed consent was obtained from the concerned teachers. Assent was taken from the students below age of 18 years and consent were obtained from students above 18 years of students.

Instruments

Internet addiction scale: Dr. Kimberly Young 1998 developed Internet Addiction Test (IAT) and it include 20 questions, which was adopted to evaluate the respondents' level of IA. Each item is scored using a five-point Likert's scale, a graded response can be selected (0= "rarely" to 5= "always"). It covers the use of internet, which affects daily routine, social life, productivity, sleeping pattern, and feeling. Total IAT scores 20-39 represent mild addicted users with whole control of their internet use, score of 40-69 represent moderate addicted users with numerous problems caused by their internet use, and score 70-100 represents high or severe addicted users with serious problem caused by their internet use.

Academic performance: Academic performance of the students was assessed based on percentage of marks achieved in the previous board exams. As per academic grading in India, the academic performance was dichotomized into >60% marks (good academic performance) and ≤60percentage marks (average/regular performance).

Procedure

The present study was conducted on 16-20 years age group of students attending the RLS PU College of science Belagavi. After obtaining the permission from the respective college authorities, the participants were briefed about the study. Analyses was done by using statistical package for social sciences (SPSS) version 20.0. Data was analyzed using Chi square, rate, proportion.

RESULTS

Data was collected through standardized questionnaire. Analysed by using frequency and percentage to see the classification of IA, X² test to check the association between IA and demographic characters and correlation analysis was used to see the relationship between IA and AP.

Table No.1 Distribution of Study Participants According to Gender

Gender	Percentage% (n)
Male	51.9(83)
Female	48.1(77)
Total	100(160)

Table no. 2 Classification of Internet addiction level according to Young's criteria

Levels of IA	Percentage % (n)
Mild	24(39)
Moderate	64(103)
Severe	11.3(18)
Total	100(160)

IA (Internet addiction)

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Table no.1 shows the distribution of students according to gender. Among 160 study participants there were 83(51.9%) were male and 77(48.1%) were female. Table no.2 shows the prevalence of Internet Addiction (IA). According to Internet Addiction Test (IAT) 39(24.4%) participants were found as mild users. 103(64.4%) participants were moderate users and 18(11.3%) participants were found severely addicted to the internet.

Table no.3 Association between levels of internet addiction and Age group

Level	Age-group			chi square	p-value
	<= 16	17 – 18	19+		
Mild	1	38	0	15.95	0.003
Moderate	4	93	6		
Severe	0	13	5		

Table no. 4 Relationship between internet addiction and academic performance

IA	Correlation	
	Correlation coefficient	AP
	p-value	0.009

IA (Internet Addiction), AP(Academic Performance)

Table no 3. Shows association between internet addiction and age group. There is significant association found amongst internet addiction and age group of pre university students. Table no.4 shows the relationship between IA and AP. Correlation analysis showed that there is significant positive relationship between internet addiction and academic performance.

DISCUSSION

The present study shows distribution of study participants according to their gender. Among 160 participants, 83(51.9%) were male and 77(48.1%) were female. In other study conducted in Bengaluru city they also have 58% of the male students.¹² Similarly in another study conducted in Indore city India were found majority of female 87.1% in their sstudy.¹³

The present study shows the prevalence of (IA). According to Internet Addiction Test (IAT) 39(24.4%) participants were found as mild users. 103(64.4%) participants were moderate users and 18(11.3%) participants were found severely addicted to the internet. Similar findings are found in the study conducted in Malaysia was 31(25.8%) and 83(69.2%) participants were mild and moderate users and 6(5.0%) were found severe addicts.¹⁴ Another study conducted in Nagara , India revealed the prevalence such as 19.13% mild and 44.35% moderates users none of the students was severely addicted to the internet.¹⁵

Our study revealed correlation between IA and AP. In this study, we revealed that there is significantly positive relationship found between addiction and academic success. Similar findings found in study conducted in Iran they found negative and significant correlation between social networking addiction and AP.¹⁶ and one more study had revealed same findings between internet addictions had significant impact on academic grades.¹⁷

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Conflict of Interest

The author declared no conflict of interest.

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