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**A study to assess the level of internet addiction and its impact among  
adolescents studying high schools, Mangaluru**

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**Article Information:**

**Type of Article:** *Original Article*

**Received On:** *18<sup>th</sup> August 2024*

**Accepted On:** *29<sup>st</sup> August 2024*

**Published On:** *10<sup>th</sup> September 2024*

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**Abstract:**

The internet has both positive and negative aspects. If the user overcomes the negative aspects, internet is a boon. Excessive uncontrolled use of internet may lead to internet addiction.

**Methods and Material:** A descriptive research approach was used to assess the level of internet addiction and its impact on adolescents aged 12-16 from two selected English medium high schools in Mangalore. A sample of 200 students was selected using multistage random sampling, and data were collected through a demographic proforma, a modified Internet Addiction Test (IAT), and a structured questionnaire evaluating the impact on academic performance, family relations, and social effects. **Results:** The study found that 70.5% of adolescents were normal internet users, 23% had mild addiction, 6% had moderate addiction, and 0.5% had severe addiction. The majority (73%) experienced a mild impact, 16.5% had a moderate impact, and 10.5% reported no impact due to internet addiction. There was a positive correlation between the level of internet addiction and its impact, with  $r=0.678$  and  $P=0.000$ .

**Conclusion:** The study concluded that the majority of high school students were normal internet users with a mild impact from internet use. Significant associations were found between internet addiction and variables such as age, class, and father's occupation, while no significant links were noted with other demographic factors. A positive correlation was observed between the level of internet addiction and its impact on students.



**Keywords:** Internet addiction, adolescents, high school students.

### Introduction:

**"We are all now connected by the Internet, like neurons in a giant brain."**

### Stephen Hawking

The Internet is no longer merely an infrastructure; it has become an unlimited space for information exchange, social networking, and the development of cyber behaviours.<sup>1</sup> It is a global system of interconnected computer networks that uses the Standard Internet Protocol Suite to serve billions of users worldwide. It is a network of networks that consists of private, public, academic, business and government networks of local to global scope that are linked by a broad array of electronic and optical networking technologies. By the advent of internet our earth has reduced and has attained the form of a global village.<sup>2</sup> It has enabled the flow of information, including entertainment, news, financial, and academic material. It has brought people closer together by enabling various forms of interpersonal communication, notably e-mail, instant messaging, video conferencing, and social networking. In a very short period, it has become difficult for most of us to imagine a world without instant and continuous access to the internet.<sup>3</sup>

According to recent report published in 30th June 2014, the world's Internet user base was 3,035,749,340, in which 1,386,188,112 users are from Asia. The higher internet addiction, i.e., 45.7% is from Asian countries. Total population of India is 1,236,344,631, in which there are about 243,000,000 active internet users as compared to 5 million in 2000. Asians top the list of the highest users of the internet in the world. Equally shocking was to learn that Indians are the highest users in Asia.<sup>4</sup> According to the Internet and Mobile Association of India (IAMAI), youth account maximum internet users and the numbers are increasing swiftly every year. The reports also projected number of internet users in India is expected to reach 402 million December 2015<sup>5</sup>, there has been exclusive growth of internet usage world wide and is expected to continue with its use becoming an integral part of everyday life. The internet provides tremendous educational benefits however excessive internet use can lead to negative outcomes such as poor social performance and social isolation<sup>6</sup>

The internet has both positive and negative aspects.<sup>7</sup> If the user overcomes the negative aspects, the internet is a boon. The adolescents are the age group where they get fascinated by the internet



and along with the use they tend to misuse it. The availability of internet on the mobiles and the computer/laptops makes the student to access the internet very easily, thus there is a chance of internet addiction.

There is an urgent need and emergency to sensitize both students and parents about the negative effects of internet use and abuse. Parents and guardians should pay proper attention about what their children are doing on internet. They should encourage children to participate in outdoor activities and motivate them to go out for playing and outings than using internet.<sup>8</sup>

A descriptive study was conducted to examine the prevalence of internet addiction among secondary school children and its relationship with their academic achievements. The sample consisted of 300 male and female secondary school students studying in class IX and X of different government and private schools of Lucknow city selected by stratified random sampling. A total of 96 out of 300 students are average users of internet and constitute 32% of the total sample, scoring 20-49 points, 80 students use internet at high rate and their score is between 50-79 showing highly usage pattern. Only 30 students, i.e., 10% had extremely high usage of internet and this is the condition of internet addiction. It was observed that percentage marks obtained by students with average use was  $64.04 \pm 7.90$  and that of students with internet addiction was  $58.63 \pm 8.95$ . Thus, the study concluded that average to high use of internet positively influenced the academic achievement while no addiction and extremely high usage had a negative impact on academic achievement<sup>9</sup>.

In the emerging era, adolescents have been exposed more than ever to the internet and use online activity as an important form of social interaction. However, the internet also has some negative impacts on academic's performances, family and social life. It may still remain a matter of debate whether internet addiction has impacts on adolescence or not?<sup>10</sup> The investigator felt the need to assess internet addiction and its impact on academic performances, family and social life on adolescence.

### Methods and Material:

A descriptive research approach was adopted for the present study to assess the level of internet addiction and its impact on adolescents studying in selected English medium high schools in Mangalore. The research setting included two English medium high schools, namely St. Joseph High School from the south block and St. Lawrence High School from the north block, which



were selected for the main study. The population consisted of adolescents between the ages of 12 to 16 years, studying in the 8th, 9th, and 10th standards of the selected schools, who met the inclusion criteria and formed the sample for the study.

The sample size comprised 200 adolescents, with 100 students from each of the selected schools (north block and south block). A multistage random sampling technique was employed to select the English medium high schools. The data collection tool was divided into three sections: Section 1 included a demographic proforma, Section 2 utilized a modified version of the Internet Addiction Test (IAT), and Section 3 comprised a structured questionnaire to assess the impact of internet addiction on academic performance, family relations, and social effects.

The level of internet addiction was classified into four categories based on scores: normal users (0-30), mild addiction (31-49), moderate addiction (50-79), and severe addiction (80-100). The structured questionnaire used to assess the impact of internet addiction consisted of 16 questions on a three-point scale ranging from "always" (score of 2), "sometimes," and "never" (score of 0). The impact of internet addiction was interpreted as follows: significant impact (21-30), moderate impact (11-20), mild impact (1-10), and no impact (0).

### **Result:**

#### **Organisation and presentation of the data**

The data collected from the English medium high school students were analysed and presented under the following headings:

Section 1: Description of demographic characteristics of high school students.

Section 2: Assessment of level of internet addiction among high school students.

Section 3: Assessment of impact of internet among high school students.

Correlation between level of internet addiction and its impact among adolescents studying in selected English medium high schools.

Section 5: Analysis of association between level of internet addiction among adolescents studying in selected high schools with their selected demographic variables

Section 6: Analysis of association between impact of internet addiction among adolescents studying in selected high schools with their selected demographic variables.



### Description of demographic characteristics of adolescents

This part deals with the distribution of participants according to their baseline characteristics. The data obtained by using socio demographic proforma were summarized in terms of frequency and percentage

SL. No.	Demographic Data	Frequency (f)	Percentage (%)
<b>1.</b>	Gender		
	a. Male	<b>105</b>	<b>52.5</b>
	b. Female	<b>95</b>	<b>47.5</b>
<b>2.</b>	Age in years		
	a. 12 years	<b>3</b>	<b>1.5</b>
	b. 13 years	<b>52</b>	<b>26.0</b>
	c. 14 years	<b>62</b>	<b>31.0</b>
	d. 15 years	<b>66</b>	<b>33.0</b>
	e. 16 years	<b>17</b>	<b>8.5</b>
<b>3.</b>	Class		
	a. 8th standard	<b>68</b>	<b>34.0</b>
	b. 9th standard	<b>56</b>	<b>28.0</b>
	c. 10th standard	<b>76</b>	<b>38.0</b>
<b>4.</b>	Religion		
	a. Hindu	<b>121</b>	<b>60.5</b>
	b. Muslim	<b>17</b>	<b>8.5</b>
	c. Christian	<b>61</b>	<b>30.5</b>



	d. Others	<b>1</b>	<b>0.5</b>
<b>5.</b>	Mode of Internet Access		
	a. Mobile/Tablets/iPad	<b>164</b>	<b>82.0</b>
	b. Personal computer	<b>19</b>	<b>9.5</b>
	c. Cyber	<b>17</b>	<b>8.5</b>
	d. Other	<b>0</b>	<b>0.0</b>

The data shows that the majority of the samples 52.5%(105) were males and 47.5% (95) were females.

Most of the samples 33% (66) were in the age group of 15 years and minority 1.5% (3) of samples belonged to the age of 12, whereas about 20% (52) were in the age of 13 years and 8.5% (17) were in the age group of 16 years

Most of the samples 38% (76) were from 10th class and minority, 28% (56) samples were from 9th class, whereas about 34% (68) samples were from th class

With regards to religion, majority of the samples 60.5% (121) belonged to Hindu religion, the 30.5% (61) samples belonged to Christian religion, 8.5% (17) belonged to Muslim religion and 0.5% (1) belonged to others religion.

Majority of the respondents 82% (164) uses Mobile/Tablets/iPad for accessing internet, 9.5% (19) of samples used personal computer for accessing internet whereas least of samples 8.5% (17) went to cyber to get internet access.

#### **Assessment of level of internet addiction among high school students.**

This section deals with the analysis and interpretation of the data to describe the level of internet addiction among high school students. A modified internet addiction scale was used to collect the data. Data were interpreted using frequency and percentage distribution, mean, standard deviation, percentage mean of internet addiction scores of high school students.

70.5% of the high school students were normal users, 23% had mild addiction, 6% had moderate addiction, and 0.5% had severe addiction Assessment of impact of internet among high school students



Frequency and percentage distribution of impact of internet among

Overall mean percentage and standard deviation of internet addiction among high

majority of samples 73% of the high school students had mild impact, 16.5% had moderate impact, 10.5% had no impact and none of them had significant impact.

### **Conclusion:**

**Based on the findings of the study the following conclusions have been drawn:**

Majority of the samples 52.5% (105) were males and 47.5% (95) were females. The most of the samples 33% (66) were at age of 15 years. The most of the samples 38% (76) were from 10th class. The majority of the samples 60.5% (121) belonged to Hindu religion. The majority of the samples 71% (142) belonged from Nuclear family. The most of the samples 45% (90) were having only one sibling. The majority of the samples 99.5% (199) were residing with family. The majority of the samples 87% (174) were from urban area. Most of samples' fathers 40% (80) had high school education and mothers 30.5% (61) had high school education. Most of the samples fathers 29% (58) were having private job whereas 58% (116) of mother were homemaker. Majority of the respondents 82% (164) uses Mobile/Tablets/iPad for accessing internet.

The level of internet addiction findings revealed that majority of the participants 141 (70.5%) are normal users, 46 (23%) had mild addiction, 12 (6%) had moderate addiction and 1 (0.5%) had severe addiction. Percentage

[2:01 pm, 12/08/2024] Sahil.: mean of "Normal user" was 30.72 with a mean and standard deviation of  $8.91 \pm 8.563$ , "Mild addiction" was 76.38 with a mean and standard deviation of  $37.43 \pm 6.127$ , "Moderate addiction" was 90.60 with a mean and standard deviation of  $57.08 \pm 5.178$  and mean value of "severe impact" is 83.

Overall Percentage mean of internet addiction scores was 22.57 with a mean and standard deviation of  $18.74 \pm 17.893$ .

The study also revealed that 146(73%) have "Mild impact", 33(16.5%) have "Moderate impact", 21(10.5%) have "No impact" while none of them have "significant impact" due to internet addiction. Percentage mean of "Moderate impact" was 67.36 with a mean and standard deviation of  $14.82 \pm 3.177$ , "Mild impact" was 47.30 with a mean and standard deviation of





4.3±2.723, None of the high school students were having "No impact" as well as "significant impact" due to use of internet.

Overall mean percentage of impact of internet was 26.81 with a mean and standard deviation of 5.90±4.990.

There was significant positive co-relation  $r = 0.678$  between internet addiction and its impact among high school students.

There was significant association between internet addiction among adolescents studying in high schools with their selected demographic variables like age, class, number of siblings and occupation of father of high school students whereas no significant association was found with other demographic variables like gender, religion, types of family, presently residing, place of residency, education of father, education of mother, occupation of mother and mode of internet access.

There was a significant association between the impact of internet addiction and selected demographic variables such as gender, age, class, current place of residence, and the occupation of the father among the high school students. However, no significant association was found with other demographic variables, including religion, type of family, number of siblings, place of residency, father's education, mother's education, mother's occupation, and mode of internet access.

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