



PREVALANCE OF INTERNET ADDICTION AND ITS ASSOCIATION WITH ANXIETY AND DEPRESSION AMONG COLLEGE STUDENTS

PROF. PREMKUMAR. C.,

HOD/ Associate Professor, Department of Mental Health (Psychiatric) Nursing, Shri Vinoba Bhave College of Nursing, Silvassa, Dadra and Nagar Haveli (UT of India)

MS. PRAGATI R. PATEL,

Corresponding Author

M.Sc Nursing, Department of Mental Health (Psychiatric) Nursing,
Shri Vinoba Bhave College of Nursing, Silvassa, Dadra and Nagar Haveli (UT of India)

ABSTRACT: Internet is largely seen as one of the biggest technology platform. It is a source of knowledge, entertainment, brand building, commerce, education and much more. The use of the internet on college campuses and in society has increased dramatically in recent years. The study was aimed to assess the Prevalence of Internet Addiction and its association with Anxiety and Depression among college students. This descriptive study was conducted in 2022 among conveniently selected 300 college students from selected colleges of Silvassa. Pre-validated, Young's Internet Addiction, Beck's Anxiety Inventory and Beck's Depression Inventory was self-administered for data collection. Data analysis was done through Descriptive and Inferential statistics. Among 300 respondents 19.67% students were found to be At Normal level, 33% students were found to be at mild level of Internet Addiction, 42.67% students were found to be at Moderate level of Internet Addiction and 4.67% students were found to be at severe level of Internet Addiction. Internet Addiction is highly associated with Anxiety and depression. It is recommended that awareness programs in colleges about management of Internet Addiction will decrease prevalence of Internet Addiction among student at some point of in the future.

Key words: Internet Addiction, Depression, Anxiety, Awareness Program, Young's Internet Addiction, Beck's Anxiety Inventory and Beck's Depression Inventory

INTRODUCTION

In recent years, technological advancements have taken place in the modern world. In the complexity of today's world, internet use is playing a vital role in educational institutions to attain different learning skills, which have become a necessity for university students. However, scholars have shown concerns about the excessive use of this technology and the hidden risk factors of internet users, such as physical and mental health. According to Internet is defined as a network of networks in which users at any one computer can, with permission get information from another device. It is a public, cooperative and self-sustaining facility accessible to hundreds of millions of people worldwide. It uses transmission control protocol. It has replaced old methods of communication such as postal services.

The Internet is an easy and quick medium of interaction to gain the required information for communication with others around the world. However, a lack of control over excessive internet use can disturb individuals' living standards and relationships between family members, and it can bring instability of feelings. There has been a tremendous growth of Internet use all over the world, and this is anticipated to continue with its use, becoming an essential part of daily life. Completing work, playing games online, reading and writing emails, and engaging in communication are common activities involving Internet use. Internet is largely seen as one of the biggest technology platform. It is a source of knowledge, entertainment, brand building, commerce, education and much more. The use of the internet on college campuses and in society has increased dramatically in recent years. Whereas the academic use of the internet is primarily intended for learning and research, the internet has also become an important part of student life. However, from time to time, cases of over involvement with the internet have been observed on different campuses.

As per Shaw M and Black DW, IA can be described as “excessive or poorly controlled preoccupations, urges, or behaviors regarding computer use and Internet access that lead to impairment or distress”.

The International Telecommunication Union (ITU) estimates that approximately 4.9 billion people – or 63 per cent of the world's population – are using the Internet in 2021. This represents an increase of 17 percent since 2019, with 782 million people estimated to have come online during that period. However, this leaves 2.9 billion people still offline. According to the International Telecommunication Union, about 3.2 billion people who are almost half of the world's population would be online. Of them, about 2 billion would be from developing countries, including 89 million from least developed countries. It defined Internet users as persons who had used any device to access the internet for the past 12 months. With over 560 million internet users, India is the second largest online market in the world, ranked only behind China. It was estimated that by 2023, there would be over 650 million internet users the country. Despite the large base of internet users, the internet penetration rate in the country stood at around 50 percent in 2020. This meant that around half of the 1.37 billion Indians had access to internet that year. There has been a consistent increase in internet accessibility compared to just five years ago, when the internet penetration rate was around 27 percent.

STATEMENT OF THE PROBLEM:

“A STUDY TO ASSESS THE PREVALENCE OF INTERNET ADDICTION AND ITS ASSOCIATION WITH DEPRESSION AND ANXIETY AMONG COLLEGE STUDENTS OF SELECTED COLLEGES OF SILVASSA, DADRA AND NAGAR HAVELI.”

OBJECTIVES OF THE STUDY

1. To assess the prevalence of internet addiction among college students.
2. To find out the association between Internet addiction and depression symptoms among the college students.
3. To find out the association between Internet addiction and anxiety symptoms among the college students.
4. To find out the association between level of internet addiction with their selected demographic variable.

HYPOTHESES:

RESEARCH HYPOTHESES

- **RH1:** There will be a significant association between Internet Addiction and Depression symptoms among college the students at 0.05 level of significance.
- **RH2:** There will be a significant association between Internet Addiction and Anxiety symptoms among the college students at 0.05 level of significance.
- **RH3:** There will be a significant association between level of internet addiction with their selected demographic variable at 0.05 level of significance.

ASSUMPTION:

1. Students use internet excessively for the entertainment and social networking.
2. Internet addiction students may have Depression and anxiety due to over usage of internet.

METHODOLOGY

Study Design: Descriptive Research design

Research Setting: Selected college, Silvassa, DNH

Population: College student of selected college, Silvassa ,DNH

Sample Size: 300 college students

Sampling Technique: Non Probability convenient sampling technique.

Inclusion criteria:

1. Above the age of 18 College students
2. Students who are studying in undergraduate courses.
3. Who will be willing to participate in this study.
4. Students who are using internet daily
5. Students who are available at a time of data collection.

Exclusion criteria:

1. Who are not willing to participate for this study.
2. College students aged above 26 years
3. Students who are absent at a time of data collection.

Tool Description:

Data collection tool

- **Section I-** Baseline Data including socio demographic variable.
- **Section II:** Young's Internet Addiction Scale to check the level of internet addiction among college students.
- **Section III-** Beck's Depression Inventory to check the level of depression among college students.
- **Section IV:** Beck's Anxiety Inventory to check the level of anxiety among college students.

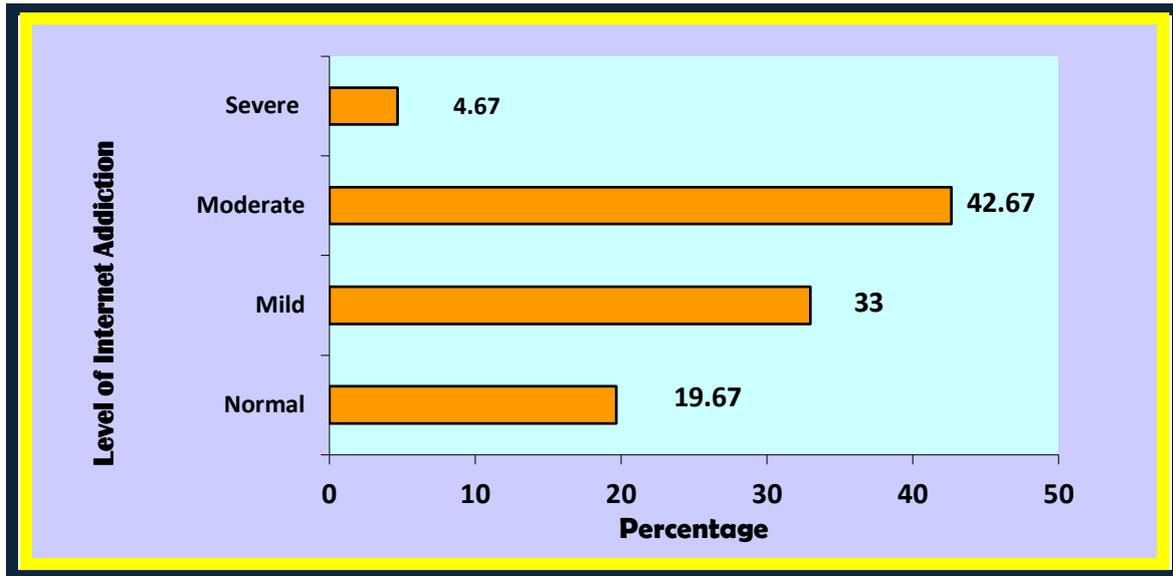
DATA ANALYSIS AND INTERPRETATION

PART 1: DESCRIPTION OF BASELINE CHARACTERISTICS

| Demographic variables | Frequency | Percentage |
|---------------------------|-----------|------------|
| 1.Age (in years): | | |
| 18-20 years | 110 | 36.7 |
| 21-23 years | 111 | 37 |
| 24-26 years | 19 | 26.3 |
| 2.Gender: | | |
| Male | 130 | 43.3 |
| Female | 170 | 56.7 |
| Others | 0 | 0 |
| 3.Course of study: | | |
| Arts | 66 | 22 |
| Commerce | 69 | 23 |
| Science | 93 | 31 |
| Nursing | 72 | 24 |
| Others | 0 | 0 |
| 4. Academic Year: | | |
| 1 st | 77 | 25.7 |
| 2 nd | 99 | 33 |
| 3 rd | 72 | 24 |
| 4 th | 52 | 17.3 |

| | | |
|---|-----|-------|
| 5. kind of family system: | | |
| Nuclear family | 157 | 52.3 |
| Joint family | 143 | 47.7 |
| Extended family | 0 | 0 |
| Others | 0 | 0 |
| 6. Residence: | | |
| Hostel | 115 | 38.3 |
| P. G. | 18 | 6 |
| Home | 167 | 55.7 |
| 7.Monthly income: | | |
| Less than 2091 | 0 | 0 |
| 2092-6213 | 5 | 1.7 |
| 6214-10,356 | 62 | 20.7 |
| 10,357-15,535 | 86 | 28.7 |
| 15,536-20,714 | 70 | 23.3 |
| 20,715-41,429 | 51 | 17 |
| More than 41,430 | 26 | 8.7 |
| 8.Birth order: | | |
| 1st child | 65 | 21.7 |
| 2nd child | 91 | 30.3 |
| 3rd child | 126 | 42 |
| 4th and above | 18 | 6 |
| 9.Means of using Internet: | | |
| Computer | 5 | 1.7 |
| Mobile | 245 | 81.7 |
| Laptop | 28 | 9.3 |
| Tablet | 22 | 7.3 |
| 10. How long you have been internet users: | | |
| Less than 1 year | 65 | 21.7 |
| 2-3 year | 102 | 34 |
| More than 3 years | 133 | 44.3 |
| Not using | 0 | 0 |
| 11. Age of starting using internet use: | | |
| Less than 6 year | 0 | 0 |
| 6 to 10 year | 31 | 10.33 |
| 11 to 15 year | 158 | 52.67 |
| 16 to 20 year | 111 | 37 |
| 21 to 25 year | 0 | 0 |
| 12. How many hours do you spend on internet per day: | | |
| 0-2 hours | 18 | 6 |
| 3-5 hours | 53 | 17.67 |
| 6-8 hours | 111 | 37 |
| 8-10 hours | 77 | 25.67 |
| More than 10 hours | 41 | 13.67 |
| 13.what is main purpose of using internet: | | |
| To play online Games | 21 | 7 |
| To do research and assignments | 103 | 34.33 |
| For using Social Media | 176 | 58.67 |
| For communication | 0 | 0 |
| Pornography | 0 | 0 |
| 14.Types of data used: | | |
| 3G | 0 | 0 |
| 4G | 290 | 96.7 |
| Broadband/ Wi-Fi | 10 | 3.3 |

PART 2: ASSESS THE PREVALENCE OF INTERNET ADDICTION AMONG COLLEGE STUDENTS



The above chart depicts that out of 300 students, 19.67% students were found to be At Normal level, 33% students were found to be at mild level of Internet Addiction, 42.67% students were found to be at Moderate level of Internet Addiction and 4.67% students were found to be at severe level of Internet Addiction.

PART 3: ASSOCIATION AND CO-RELATION BETWEEN INTERNET ADDICTION AND ANXIETY.

| Internet addiction | Anxiety | | | total |
|---------------------|---|----------|---------------------------|-------|
| | low | moderate | potentially concern level | |
| Normal | 34 | 19 | 6 | 59 |
| Mild | 79 | 17 | 3 | 99 |
| Moderate | 7 | 117 | 4 | 128 |
| Severe | 0 | 14 | 0 | 14 |
| Total | 120 | 167 | 13 | 300 |
| Chi-square, P value | $\chi^2 = 160.39$ df = 6 P value= 0.00001 P<0.01, Very High Significant | | | |

*p<0.05 significant, ** p<0.01 & ***p<0.001 Highly significant.

In the aspects of Internet Addiction the association between level of Anxiety and Internet addiction is very high significant ($\chi^2=160.39$, p value= 0.00001) that means there is an association between internet addiction and level of anxiety among college students.

Hence, **RH2:** There is significant association between Internet Addiction and Anxiety symptoms among the college students was accepted at 0.05 level of significance.

PART 4: ASSOCIATION AND CO-RELATION BETWEEN INTERNET ADDICTION AND DEPRESSION.

| Internet addiction | Depression | | | | | | Total |
|---------------------|--|------|------------|----------|--------|---------|-------|
| | Normal | Mild | Borderline | Moderate | Severe | Extreme | |
| Normal | 10 | 15 | 24 | 10 | 0 | 0 | 59 |
| Mild | 14 | 57 | 20 | 8 | 0 | 0 | 99 |
| Moderate | 21 | 22 | 26 | 50 | 8 | 1 | 128 |
| Severe | 2 | 0 | 5 | 7 | 0 | 0 | 14 |
| Total | 47 | 94 | 75 | 75 | 8 | 1 | 300 |
| Chi-square, P value | $\chi^2 = 80$ df = 15 P value= 0.00001 P<0.01, Very High Significant | | | | | | |

*p<0.05 significant, ** p<0.01 & ***p<0.001 Highly significant.

In the aspects of Internet Addiction the association between level of Depression and Internet addiction is very high significant ($\chi^2=80$, p value =0.00001) that means there is an association between internet addiction and level of depression among college students.

Hence the **RH1**: There is significant association between Internet Addiction and Depressive symptoms among college the students was accepted at 0.05 level of significance.

PART 5: ASSOCIATION OF THE INTERNET ADDICTION SCORE WITH BASELINE CHARACTERISTICS

Baseline characteristics such as Means of using internet, How long the students have been internet users and total hours spend on internet per day by students are having association with Internet Addiction at 0.05 level of significance. (Means of using internet $\chi^2=2.99$, df=6, How long you have been internet users $\chi^2=7.07$, df= 9, How many hours do you spend on internet per day, $\chi^2=14.52$, df=10). There is no significant association between Internet Addiction and Age $\chi^2=2.99$, Gender $\chi^2=1.86$, Course of study $\chi^2=1.24$, Academic year $\chi^2=5.577$, Kind of family system $\chi^2=0.87$, Residence $\chi^2= 5.52$, Monthly income $\chi^2=10.16$, Birth order $\chi^2=4.74$, Age of starting using internet $\chi^2=0.580$, What is the main purpose of using internet $\chi^2=0.697$, Types of data used $\chi^2=4.44$. As the results shown at the level of 0.05 significance research hypothesis (RH₂) is partially accepted.

DISCUSSION

Various studies have been conducted to assess the prevalence of Internet Addiction and its association with Anxiety and Depression. The findings of the present study have been discussed with reference to the objectives and hypotheses in the light of other studies. This finding was in consistent with a study titled conducted by Sachin R Gedam, Santanu Ghosh et al on to assess the prevalence and pattern of Internet Addiction among health professional undergraduates in Jawaharlal Nehru Medical College, Wardha, Maharashtra, India. As per the result prevalence of internet addiction was 19.85%, with moderate and severe addiction being 19.5% and 0.4%, respectively.

Jain A, Sharma R et al were conducted a cross sectional study on internet addiction and its association with depression and insomnia in university students in Jaipur, Rajasthan. 954 subjects were enrolled who had been using internet for past 6 months. Internet addiction Test (IAT), PHQ-9, and insomnia Severity Index (ISI) were applied to measure internet addiction, depression and insomnia respectively. Several parameters including graduation level, time spent per day on line, place of internet use, smoking and alcohol had significant association with internet addiction. Internet addiction was predominantly associated with depression and insomnia.

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