

A Study to Assess the Awareness Regarding the Effects of Internet Addiction Among Secondary School Students in Selected Schools

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ABSTRACT

Background: Internet addiction is an emerging public health concern among adolescents due to increased use of smartphones and digital technology. Excessive internet use may adversely affect students' physical, psychological, social, and academic well-being.

Objectives: To assess the level of internet addiction and awareness regarding its effects among secondary school students, determine the relationship between internet addiction and awareness, and identify the association between awareness and selected demographic variables.

Methods: A quantitative, non-experimental descriptive survey design was adopted. The study was conducted among 60 secondary school students selected through convenient sampling. Data were collected using the Compulsive Internet Use Scale (CIUS), a structured awareness questionnaire, and a demographic proforma. Data were analysed using descriptive and inferential statistics.

Results: The study revealed that 50% of students had a moderate level of internet addiction and 50% had a high level of internet addiction. Regarding awareness, 50% had average awareness and 50% had good awareness. A significant negative

correlation was found between internet addiction and awareness ($r = -0.57$, $p < 0.001$). Significant associations were observed between awareness and religion, place of residence, and availability of internet at home.

Conclusion: The study concludes that internet addiction is common among secondary school students despite moderate to good awareness of its harmful effects. School-based awareness programmes, parental guidance, and counselling services are recommended to promote responsible internet use and prevent internet addiction.

Keywords: Internet addiction, awareness, adolescents, secondary school students, Compulsive Internet Use Scale.

INTRODUCTION

The internet has become an integral part of modern life, influencing education, communication, entertainment, and social interaction. With the rapid growth of digital technology, internet access has become easier through smartphones, tablets, and computers. Students use the internet for online learning, information gathering, communication, and skill development. Although the internet offers many benefits, excessive use may lead to unhealthy

behavioural patterns and interfere with daily activities¹

Internet addiction is defined as excessive or poorly controlled internet use that results in distress or impairment in personal, academic, social, or occupational functioning. Dr. Kimberly Young first introduced the concept of internet addiction in 1998 and described it as a behavioural addiction with characteristics similar to substance dependence.²

Adolescents are particularly vulnerable to internet addiction because they are in a stage of rapid physical, emotional, and psychological development. Secondary school students frequently use the internet for social networking, online gaming, video streaming, and academic purposes. Easy access to smartphones and peer influence further increases the risk of excessive internet use among this age group.³

India has experienced a rapid increase in internet users due to affordable mobile data, increased smartphone ownership, and digital learning initiatives. Studies conducted among Indian adolescents have reported a considerable prevalence of problematic internet use, indicating that internet addiction has become an emerging public health concern among school-going students.⁴

Research has consistently demonstrated that excessive internet use is associated with depression, anxiety, stress, loneliness, reduced self-esteem, poor sleep quality, and impaired quality of life among adolescents. In addition, prolonged screen time has been linked to musculoskeletal problems, eye strain, headaches, social isolation, and poor scholastic achievement. These findings indicate that internet addiction has become a significant behavioural and public health issue requiring early identification and preventive interventions.⁵

OBJECTIVES

1. To assess the level of internet addiction among secondary school students using the Compulsive Internet Use Scale (CIUS).

2. To assess the level of awareness regarding the effects of internet addiction among secondary school students.
3. To categorize the level of awareness as poor, average, and good among secondary school students.
4. To determine the relationship between internet addiction and awareness regarding its effects among secondary school students.
5. To find out the association between awareness regarding the effects of internet addiction and selected demographic variables such as age, gender, class, type of family, place of residence, type of school, duration of internet use, and availability of internet at home.

Hypothesis

H₀: There is no significant association between the awareness regarding the effects of internet addiction among secondary school students and their selected demographic variables.

H₁: There is a significant level of awareness regarding the effects of internet addiction among secondary school students in selected schools.

H₂: There is a significant association between the awareness regarding the effects of internet addiction among secondary school students and their selected demographic variables.

LITERATURE REVIEW

Mihara S and Higuchi S. (2017) conducted a systematic review titled "Cross-sectional and Longitudinal Epidemiological Studies of Internet Gaming Disorder: A Systematic Review of the Literature." The objective of the review was to summarize epidemiological evidence regarding internet addiction and internet gaming disorder among adolescents and young adults. The researchers reviewed more than 80 published studies from various countries that examined the prevalence, incidence, and risk factors associated with internet

addiction. Studies included both cross-sectional and longitudinal research designs. The review reported that the prevalence of internet addiction varied between 1% and 18%, depending on the assessment tools and study population. Male gender, prolonged gaming duration, psychiatric comorbidities, poor family relationships, and emotional distress were identified as major predictors of internet addiction. The review also highlighted strong associations between excessive internet use and depression, anxiety, attention-deficit disorders, sleep disturbances, and poor academic achievement. The authors concluded that standardized diagnostic criteria and school-based preventive strategies are essential to reduce the growing burden of internet addiction among adolescents.⁶

Joseph J, Varghese A, Vijay VR, Dhandapani M, Grover S, Sharma SK, et al. (2022) conducted a systematic review and meta-analysis titled "Problematic Internet Use Among School-Going Adolescents in India: A Systematic Review and Meta-analysis." The objective of the study was to estimate the pooled prevalence of problematic internet use among Indian school-going adolescents and identify associated risk factors. A comprehensive literature search was conducted using PubMed, Scopus, Embase, Web of Science, and Google Scholar for studies published up to January 2021. Fifteen eligible studies involving 13,573 adolescents were included in the final analysis. The quality of the studies was assessed using the Joanna Briggs Institute Critical Appraisal Checklist, and a random-effects model was used for meta-analysis.

The findings revealed that the pooled prevalence of moderate problematic internet use was 21.5% (95% CI: 17.0–26.8%), while severe problematic internet use was 2.6% (95% CI: 1.6–4.2%). Higher prevalence was observed among male adolescents and students with prolonged daily internet use, excessive social networking, and online gaming habits. The authors concluded that problematic internet

use is becoming an important public health issue among Indian adolescents and recommended school-based awareness programmes, early screening, and preventive interventions.⁷

Panghal A, et al. (2025) conducted a cross-sectional study titled "Internet Addiction and Its Association with Depression, Anxiety and Quality of Life Among School-going Adolescents." The objective of the study was to determine the prevalence of internet addiction and examine its association with depression, anxiety, and quality of life among adolescents. The study included 4,057 school-going adolescents aged 12–17 years. Data were collected using Young's Internet Addiction Test (IAT), Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), and the Short Form-36 (SF-36) Quality of Life questionnaire. Statistical analysis was performed to assess the relationship between internet addiction and mental health variables.

The study found that 41.2% of adolescents had mild internet addiction, 16.9% had moderate internet addiction, and 1.5% had severe internet addiction. Internet addiction was significantly associated with higher levels of depression and anxiety and with poorer quality of life. Male students had significantly higher addiction scores than female students. The researchers concluded that early identification, mental health screening, school-based awareness programmes, and counseling interventions are essential to reduce internet addiction and improve the psychological well-being of adolescents.⁸

Lakshmi Shanthi, Ashwath J, Raju MK, and Ramalingam S. (2024) conducted a cross-sectional study titled "Problematic Internet Use Among Adolescent School Attendees: A School-based Study from Tamil Nadu, India." The objective of the study was to determine the prevalence of problematic internet use among school-going adolescents and identify associated behavioral and demographic factors. The

study was conducted among secondary school students in Tamil Nadu using a structured questionnaire and Young's Internet Addiction Test (IAT). Descriptive statistics and multivariable logistic regression analysis were used to identify factors associated with problematic internet use.

The findings showed that a considerable proportion of adolescents exhibited problematic internet use. Male students, excessive daily screen time, online gaming, and prolonged social media use were significantly associated with higher internet addiction scores. The authors concluded that problematic internet use is an emerging concern among Indian adolescents and recommended regular school-based screening, awareness programmes, parental supervision, and counseling services to promote healthy internet habits.⁹

MATERIALS & METHODS

- Design: Non experimental Descriptive survey design
- Target population: Secondary school students
- Accessible Population: Secondary school students at selected school who are available at the time of data collection.

Sampling technique: convenient sampling technique

Statistical Analysis

DATA INTERPRETATION, ORGANIZATION OF DATA: TABLES, FIGURES AND GRAPHS

The data collected of the study was classified, organized and analyzed under following sections: -

SECTION I

Deals with analysis of demographic data of secondary school students in selected schools in terms of frequency and percentage.

SECTION II

Deals with analysis of data related to assessment of level of internet addiction and awareness regarding the effects of internet addiction among secondary school students in selected schools in terms of frequency and percentage.

SECTION III

Deals with analysis of data related to the correlation between level of internet addiction and awareness regarding the effects of internet addiction among secondary school students in selected schools.

SECTION IV

Deals with analysis of data related to the association between awareness regarding effects of internet addiction and selected demographic variables such as age, gender, class, type of family, place of residence, type of school, duration of internet use, and availability of internet at home.

Table 1: Frequency & percentage distribution of mothers of under five years of children in selected rural area

Sr. No.	Variable	Groups	Frequency	Percentage
1	Age (in Years)	11-12.	10	16.67
		13-14.	20	33.33
		15-16.	18	30.00
		above 16	12	20.00
2	Gender	Male	19	31.67
		Female	13	21.67
		Other	15	25.00
		Prefer not to say	13	21.67
3	Class / Standard	VIII	20	33.33
		IX	8	13.33

4	Religion	X	15	25.00
		XI	17	28.33
		Hindu	19	31.67
		Muslim	10	16.67
		Christian	8	13.33
5	Type of family	Others	23	38.33
		Nuclear	11	18.33
		Joint	18	30.00
		Extended	17	28.33
6	Number of siblings	Single Parent family	14	23.33
		None	14	23.33
		One	10	16.67
		Two	23	38.33
		Three or more	13	21.67

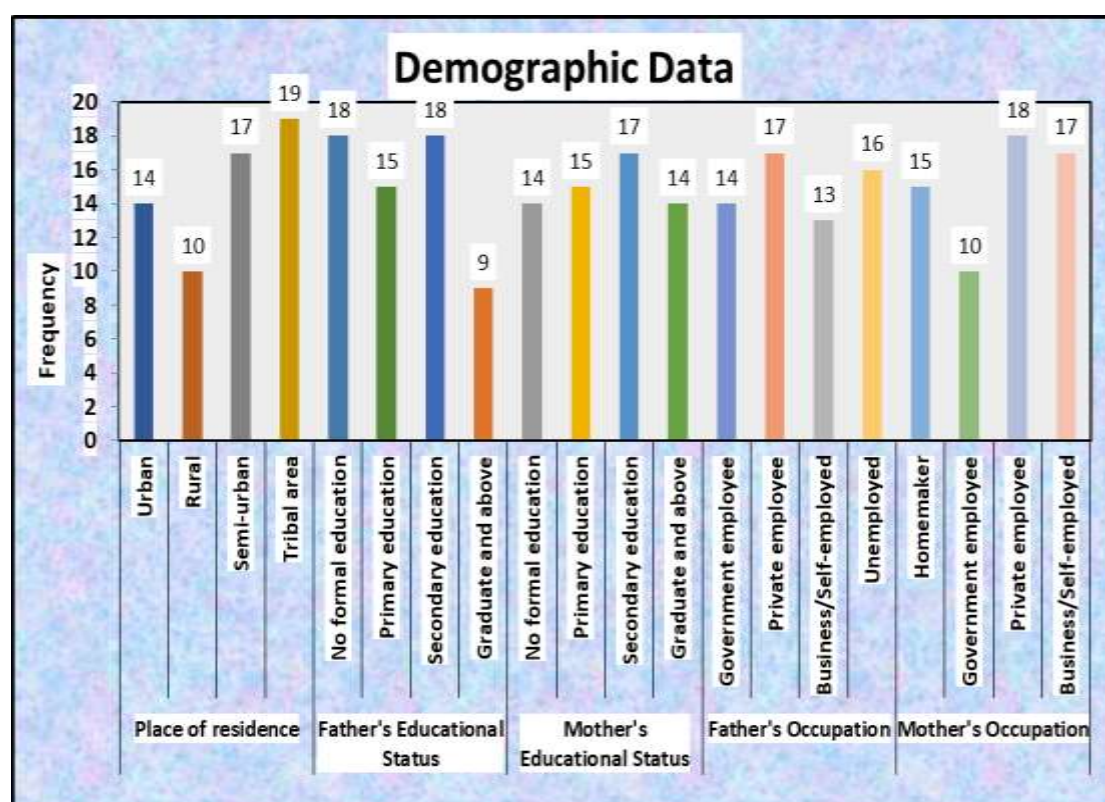
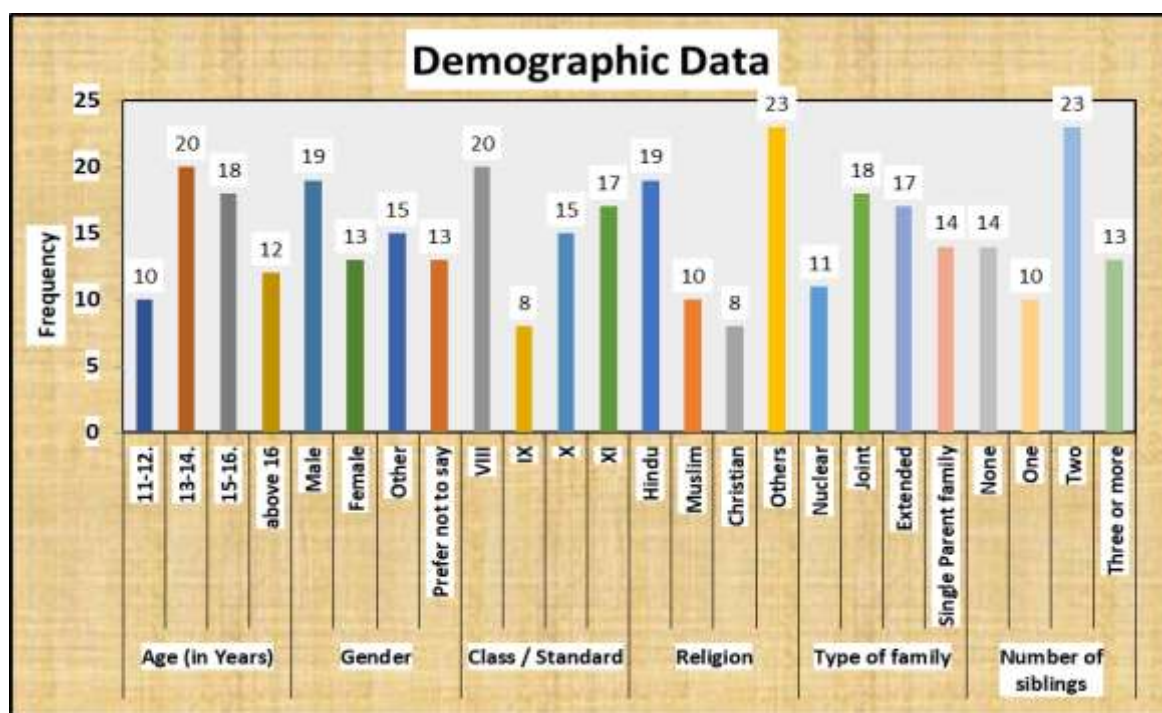
Table 2: Frequency & percentage distribution of the secondary school students in selected schools

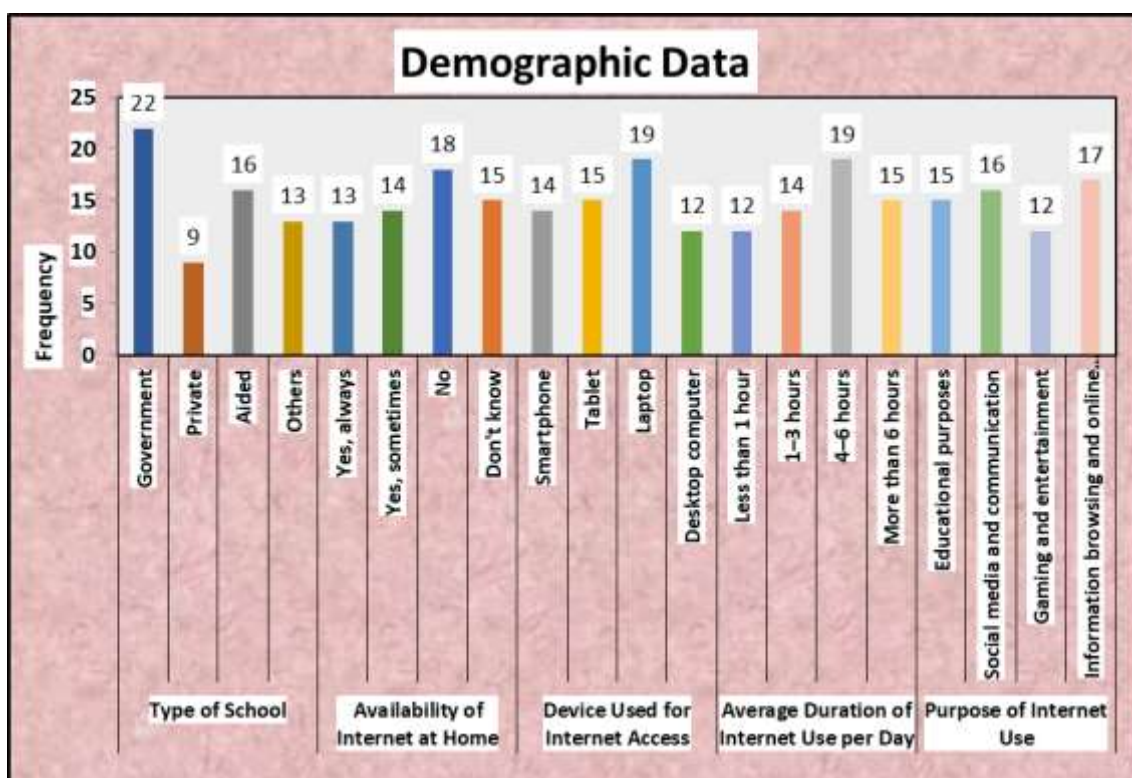
Sr. No.	Variable	Groups	Frequency	Percentage
7	Place of residence	Urban	14	23.33
		Rural	10	16.67
		Semi-urban	17	28.33
		Tribal area	19	31.67
8	Father's Educational Status	No formal education	18	30.00
		Primary education	15	25.00
		Secondary education	18	30.00
		Graduate and above	9	15.00
9	Mother's Educational Status	No formal education	14	23.33
		Primary education	15	25.00
		Secondary education	17	28.33
		Graduate and above	14	23.33
10	Father's Occupation	Government employee	14	23.33
		Private employee	17	28.33
		Business/Self-employed	13	21.67
		Unemployed	16	26.67
11	Mother's Occupation	Homemaker	15	25.00
		Government employee	10	16.67
		Private employee	18	30.00
		Business/Self-employed	17	28.33

Table 3: Frequency & percentage distribution of the secondary school students in selected schools

	Variable	Groups	Frequency	Percentage
12	Type of School	Government	22	36.67
		Private	9	15.00
		Aided	16	26.67
		Others	13	21.67
13	Availability of Internet at Home	Yes, always	13	21.67
		Yes, sometimes	14	23.33
		No	18	30.00
		Don't know	15	25.00
14	Device Used for Internet Access	Smartphone	14	23.33
		Tablet	15	25.00
		Laptop	19	31.67
		Desktop computer	12	20.00
15	Average Duration of Internet Use per Day	Less than 1 hour	12	20.00
		1-3 hours	14	23.33
		4-6 hours	19	31.67
		More than 6 hours	15	25.00
16	Purpose of Internet Use	Educational purposes	15	25.00

	Social media and communication	16	26.67
	Gaming and entertainment	12	20.00
	Information browsing and online shopping	17	28.33





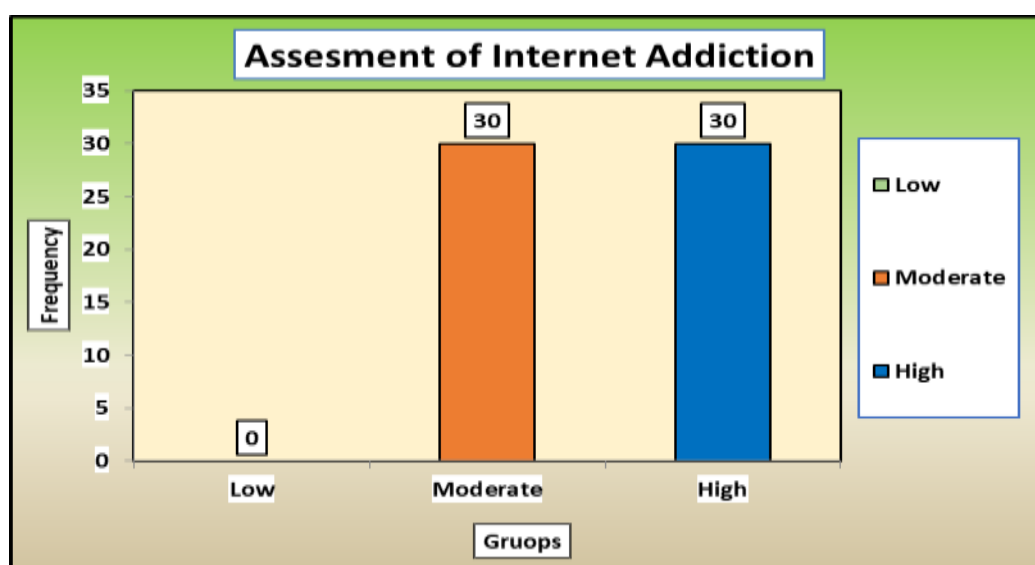
SECTION II

Deals with analysis of data related to assessment of level of internet addiction

among secondary school students in selected schools in terms of frequency and percentage.

Table 4: General assessments of level of internet addiction among secondary school students in selected schools

Variable	Groups	Score	Frequency	Percentage
Internet Addiction	Low	0-14	0	0.00
	Moderate	15-28	30	50.00
	High	29-56	30	50.00
Internet Addiction	Minimum		16	
	Maximum		42	
	Average (SD)		28.41 (5.58)	



Deals with analysis related to assessment of awareness regarding effects of internet addiction among secondary school students

in selected schools in terms of frequency and percentage.

Table 5: General assessments of awareness regarding effects of internet addiction among secondary school students

Variable	Groups	Score	Frequency	Percentage
Awareness	Poor	0-5	0	0.00
	Average	6-10.	30	50.00
	Good	11-15.	30	50.00
Awareness	Minimum	6		
	Maximum	15		
	Average (SD)	9.86 (2.94)		

Assessment of awareness regarding effects of internet addiction among secondary school students in selected schools shows that, no one of them had poor awareness, 50% had average awareness and 50% of them had good awareness level.

Average awareness score regarding effects of internet addiction among secondary school students was 9.86 with standard deviation of 2.94. The minimum score of awareness was 6 with maximum score of 15.

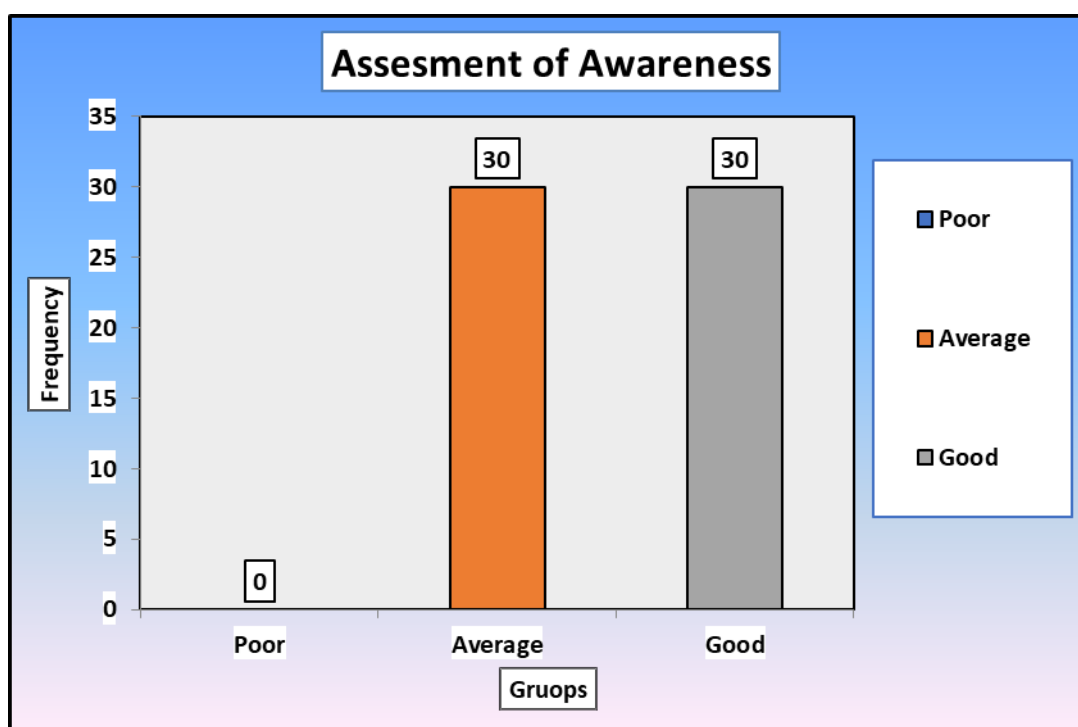


Figure No- 5: General assessments of awareness regarding effects of internet addiction among secondary school students

SECTION III

Deals with analysis related to correlation between level of internet addiction and awareness regarding effects of internet addiction among secondary school students in selected schools.

Table 6: Correlation between internet addiction and awareness regarding effects of internet addiction among secondary school students

Correlation	p value
-0.57	0.00

The Karl Pearson's correlation coefficient was used to find the correlation between level of internet addiction and awareness

regarding effects of internet addiction among secondary school students in selected schools.

The correlation coefficient between internet addiction and awareness was -0.57 with the p value 0.00. The p value less than 0.05, shows the significant correlation between

the level of internet addiction and awareness regarding effects of internet addiction among secondary school students.

The scatter diagram, also confirms correlation between internet addiction and awareness.

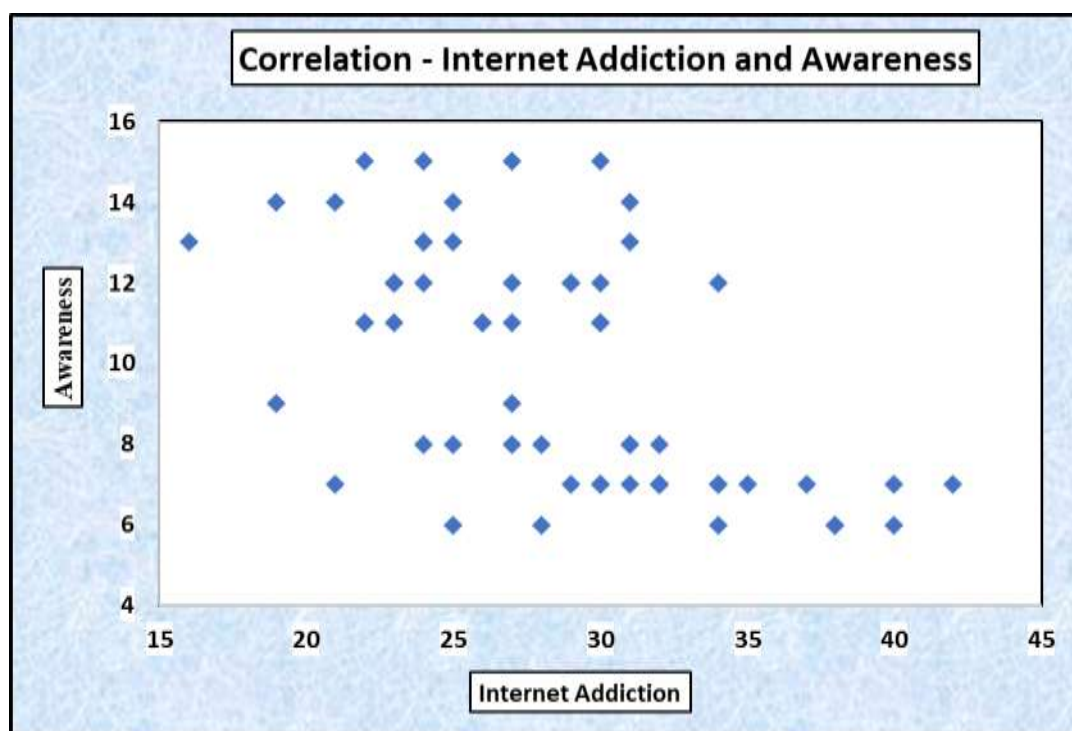


Figure 6: Scatter Diagram - Correlation of internet addiction and awareness

SECTION IV

Deals with analysis related to association between awareness regarding effects of internet addiction and selected demographic

variables such as age, gender, class, type of family, place of residence, type of school, duration of internet use, and availability of internet at home.

Table 7: Association of awareness regarding effects of internet addiction with selected demographic variables

Variable	Groups	Awareness		Chi Square	d.f.	p value	Significance
		below Md	Above Md				
Age (in Years)	11-12.	5	5	0.42	3	0.93	Not Significant
	13-14.	9	11				
	15-16.	10	8				
	above 16	6	6				
Gender	Male	10	9	0.88	3	0.82	Not Significant
	Female	7	6				
	Other	8	7				
	Prefer not to say	5	8				
Class Standard /	VIII	11	9	2.39	3	0.49	Not Significant
	IX	4	4				
	X	5	10				
	XI	10	7				
Religion	Hindu	10	9	8.47	3	0.037	Significant
	Muslim	6	4				
	Christian	7	1				

	Others	7	16				
Type of family	Nuclear	5	6	1.12	3	0.77	Not Significant
	Joint	10	8				
	Extended	7	10				
	Single Parent family	8	6				
Number of siblings	None	7	7	0.12	3	0.98	Not Significant
	One	5	5				
	Two	11	12				
	Three or more	7	6				
Place of residence	Urban	13	1	17.45	3	0.001	Significant
	Rural	5	5				
	Semi-urban	3	14				
	Tribal area	9	10				
Father's Educational Status	No formal education	8	10	2.17	3	0.54	Not Significant
	Primary education	8	7				
	Secondary education	11	7				
	Graduate and above	3	6				

ASSOCIATION OF AWARENESS REGARDING EFFECTS OF INTERNET ADDICTION WITH SELECTED DEMOGRAPHIC VARIABLES

The chi square test was used to see association between awareness regarding effects of internet addiction and selected demographic variables of secondary school students in selected schools.

The test was conducted at 5% level of significance.

Significant Association:

For the demographic variables- religion, place of residence and availability of internet at home, the p value of association test with awareness was less than 0.05. That means, the awareness regarding effects of internet addiction among secondary school students in selected schools was associated with these demographic variables.

Concludes that, there was significant association of these demographic variables with the awareness.

No Significant Association:

For the demographic variables age, gender, standard etc., the p value of association test with awareness was more than 0.05. That means, the awareness regarding effects of internet addiction among secondary school students in selected schools was not associated with these demographic variables.

DISCUSSION

The present study was conducted to assess the awareness regarding the effects of internet addiction among secondary school students in selected schools and to determine its relationship with the level of internet addiction. The findings revealed that 50% of the students had a moderate level of internet addiction, while the remaining 50% had a high level of internet addiction, indicating that problematic internet use is common among secondary school students. These findings are consistent with the systematic review and meta-analysis by Joseph et al., which reported a considerable prevalence of problematic internet use among Indian school-going adolescents and highlighted excessive internet use as an emerging public health concern. ⁽⁸⁾ Similarly, Lakshmi Shanthi et al. observed that prolonged screen time, online gaming, and social media use were major contributors to problematic internet use among adolescents ⁽¹⁰⁾.

Regarding awareness, the present study found that 50% of the students had average awareness and 50% had good awareness regarding the effects of internet addiction, with no participant demonstrating poor awareness. This finding suggests that although students possess basic knowledge about the harmful effects of excessive internet use, many continue to exhibit

moderate or high levels of internet addiction. This indicates that awareness alone may not be sufficient to change behavior, and additional interventions such as parental monitoring, counselling, and behavioural modification programmes may be necessary. These findings are supported by Panghal et al., who reported that despite awareness of the harmful effects of internet addiction, many adolescents continued to demonstrate excessive internet use associated with anxiety, depression, and poor quality of life ⁽⁹⁾.

The present study also demonstrated a statistically significant moderate negative correlation ($r = -0.57$, $p < 0.001$) between awareness regarding the effects of internet addiction and the level of internet addiction. This finding indicates that students with higher awareness tended to have lower levels of internet addiction. The result supports the concept that improving awareness may contribute to healthier internet-use behaviours. Similar observations were reported by Mihara and Higuchi, who concluded that educational programmes, early identification, and preventive strategies can reduce the risk of problematic internet use among adolescents ⁽⁷⁾.

The analysis of demographic variables revealed that religion, place of residence, and availability of internet at home showed a statistically significant association with awareness regarding the effects of internet addiction, whereas age, gender, class, type of family, number of siblings, and parents' educational status were not significantly associated. These findings suggest that environmental and accessibility factors may influence awareness more than personal demographic characteristics. Similar observations have been reported by Rathod et al., who found that internet accessibility, duration of internet use, and environmental factors significantly influenced internet-use behaviour among school-going adolescents ⁽⁶⁾. Likewise, Goel et al. reported that prolonged internet use and psychosocial factors were significantly associated with

problematic internet use among Indian adolescents ⁽³⁾.

Overall, the findings of the present study indicate that internet addiction remains highly prevalent among secondary school students despite a reasonable level of awareness regarding its harmful effects. Therefore, there is a need for comprehensive school-based health education programmes, digital wellness education, counselling services, parental involvement, and regular screening to promote responsible internet use and reduce the risk of internet addiction among adolescents. The World Health Organization also emphasizes promoting adolescent health through health education, behavioural interventions, and supportive school environments to encourage healthy digital practices and improve overall well-being ⁽¹⁾.

CONCLUSION

The present study concludes that internet addiction is a significant concern among secondary school students. Half of the participants demonstrated a moderate level of internet addiction, while the remaining half exhibited a high level of internet addiction. Although none of the students had poor awareness regarding the effects of internet addiction, only half demonstrated good awareness, indicating that there is still scope for improving students' understanding of the health, psychological, social, and academic consequences of excessive internet use.

A statistically significant negative correlation was observed between awareness and internet addiction, suggesting that students with greater awareness were less likely to exhibit higher levels of internet addiction. Furthermore, awareness was significantly associated with religion, place of residence, and availability of internet at home, indicating that environmental and social factors may influence students' knowledge regarding internet addiction.

The findings emphasize the importance of implementing structured school-based awareness programmes, digital literacy

education, parental guidance, and counselling services to encourage healthy internet-use practices among adolescents. School health nurses, teachers, and parents should work collaboratively to identify students at risk of internet addiction and provide timely preventive interventions. Such measures can contribute to improving adolescents' overall physical, psychological, social, and academic well-being while promoting responsible and balanced use of digital technology.

Declaration by Authors

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