An Exploratory Study to Assess the Prevalence of Internet Addiction and Its Impact on The Quality of Life Among Adolescents in Selected Schools of District Mohali, Punjab

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***Abstract*—The rapid advancement of technology has made the internet an integral part of adolescents' lives. While it offers many benefits, excessive use can lead to internet addiction, negatively affecting quality of life (QOL). This study assessed the prevalence of internet addiction and its impact on QOL among 300 adolescents from selected schools of District Mohali, Punjab, using the Internet Addiction Test (IAT) and WHOQOL-BREF. The study revealed that 251 (83.7%) had internet addiction, while 49 (16.3%) did not. Among the addicted group, 94 (39.0%) had mild, 98 (40.6%) moderate, and 59 (19.6%) severe addiction. Regarding QOL, 118 (47.0%) reported poor QOL, 93 (37.0%) neither poor nor good, and 40 (15.9%) very poor QOL. The thesis abstract reports a mean internet addiction score of 86.01 (SD=18.11), while the correlation table reports a mean of 71.88 (SD=11.97); both values are retained as reported in the source thesis. A strong negative correlation (r=-0.988) was found between internet addiction and QOL. The findings highlight the need for interventions, awareness programmes, and collaboration among schools, parents and healthcare professionals.**

***Index Terms*—Internet addiction, Quality of life, Adolescents, Health impact, Physical health, Mental health, social health.**

I. INTRODUCTION

In an era where the globe is readily accessible, the internet has become deeply integrated into daily life and has altered methods of connection, learning and cognition. It provides access to information, communication, education, entertainment and social interaction. However, over-reliance and excessive use can affect mental, physical and social well-being.
Internet addiction, also referred to as cyber addiction in the thesis, describes compulsive and excessive internet use that interferes with health, relationships and daily functioning. Adolescents are an important group because internet use is increasingly embedded in education, recreation and social life.

The thesis literature review describes concerns related to excessive internet use including deterioration of social relationships, behavioural challenges, failure to meet responsibilities, sleep disturbance, reduced physical activity, psychological difficulties and impaired academic functioning. Quality of life is a multidimensional indicator of well-being encompassing physical health, psychological health, social relationships, environment and academic functioning.

The present study was undertaken to assess the prevalence of internet addiction and its impact on quality of life among adolescents in selected schools of District Mohali, Punjab.

II. OBJECTIVES

- To assess the prevalence of internet addiction and its impact on the quality of life among adolescents in selected schools of District Mohali, Punjab.
- To determine the correlation between internet addiction and quality of life among adolescents.

- To find out association between prevalence of internet addiction and quality of life with selected socio-demographic variables.

III. METHODS

Research Approach and Design:
A quantitative research approach and descriptive research design were used to assess internet addiction and its impact on quality of life among adolescents.

Research setting:
The study was conducted in selected schools of District Mohali, Punjab: S.K. Sr. Sec. School, Desu Majra; Dasmesh Khalsa Sr. Sec. School, Phase 6; and Henderson Jubilee Sr. Sec. School, Kharar.

Population, sample and sampling:
The target population comprised adolescents aged 15–18 years who fulfilled the inclusion criteria. The sample size was 300 adolescents and purposive sampling was used.

Inclusion criteria:
Adolescents aged 15–18 years who were willing to participate.

Exclusion criteria:
Adolescents who were sick or unwilling to participate.

Variables:
Level of internet addiction and its impact on quality of life.

Conceptual framework:
The study was based on Ernestine Wiedenbach's theory. The thesis describes the central purpose as assessment of cyberspace addiction and its effects on adolescent health; prescription as use of the IAT and WHOQOL tools; realities as adolescents in selected schools; and action as strategies used to overcome the problem.

Tools:
Section A consisted of 9 socio-demographic items.
Section B was the standardized 20-item Internet Addiction Test, a 6-point rating scale scored 0–5. Scores were classified as none 0–30, mild 31–49, moderate 50–79 and severe 80–100.
Section C used the standardized WHOQOL-BREF, a 26-item 5-point rating scale scored 1–5, classified as very good 1–26, good 27–52, neither good nor poor 53–78, poor 79–104 and very poor 105–130.

Validity and Reliability:
Content validity was established through seven experts from child health, medical-surgical, psychiatric, community health and obstetrics & gynaecology nursing. The thesis report's reliability coefficients of r=0.878 for both IAT and WHOQOL-BREF.

Pilot study:
A pilot study was conducted in April 2024 among 30 adolescents after administrative permission and written consent. Sections A and B required approximately 20 minutes; Section C required an additional 20 minutes for participants assessed for quality of life.

Data collection:
Formal permission was obtained from the selected schools. Data were collected in April 2024 from 300 participants class-wise. Written consent was obtained, confidentiality was maintained, and Sections A and B were administered first; participants identified with internet addiction were further assessed using WHOQOL-BREF.

Ethical considerations:
Permission was obtained from the Principal of Mata Sahib Kaur College of Nursing, the ethical committee, and principals of selected schools. Participants were informed about the study and written informed consent was taken.

Data analysis:
Descriptive and inferential statistics were used. Frequency, percentage, mean and standard deviation were used for description; chi-square was used for association and Karl Pearson correlation for correlation. The level of significance was $p<0.05$.

IV. RESULTS

Socio-demographic profile: Among 300 adolescents, 159 (53%) were aged 15–16 years and 141 (46%) were 17–18 years; 163 (53.3%) were male and 137 (45.6%)

females. The majority were in 10th grade (117, 39%), lived in urban areas (152, 50.6%), belonged to nuclear families (187, 62%), had monthly family income 20,001–30,000 (125, 41.6%), spent 1–2 hours online daily ₹ (118, 37.3%), had used the internet for 2 years (103, 35.3%), and mostly searched social-media content (98, 32.6%).

Table 1. Frequency and percentage distribution according to socio-demographic variables (N=300).

Variable / Category	f	%
Age		
15–16 years	159	53
17–18 years	141	46
Gender		
Male	163	53.3
Female	137	45.6
Class		
9th	57	19
10th	117	39
11th	9	3.1
12th	11	39
Place of residence		
Rural	144	48.9
Urban	152	50.6
Type of family		
Nuclear	187	62
Joint	113	37.3
Monthly family income (₹)		
< 10,000	33	11.3
10,001–20,000	82	27.39
20,001–30,000	125	41.6
> 30,001	60	20.5
Hours spent online per day		
< 1 hour	44	15.5
1–2 hours	118	37.3
3–4 hours	76	21.2
> 5 hours	62	20.6
Duration of internet use		
< 6 months	40	13.3
1 year	74	24.6
2 years	103	35.3
3 years	83	27.7†
Type of content mostly searched		
Music	50	16.7†
Games	65	21.7†
Movies	63	21.0†
Academic	24	8.0†
Social media	98	32.6

† Percentage not legible in the source file; calculated as f/N × 100. All other values are as reported.

Prevalence: Of 300 adolescents, 251 (83.7%) were identified as having internet addiction and 49 (16.3%) were categorized as not experiencing internet

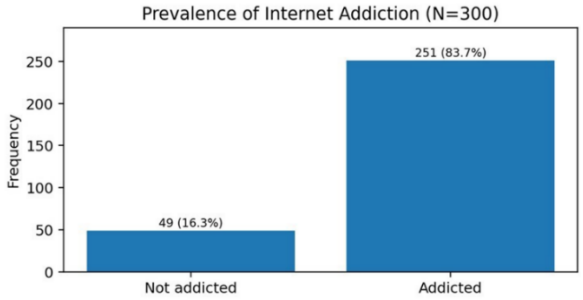


Figure 1. Bar graph showing prevalence of internet addiction among adolescents (N=300).

Among adolescents with internet addiction (N=251), 94 (39.0%) had mild, 98 (40.6%) moderate and 59 (19.6%) severe addiction (Table 2, Figure 2).

Table 2. Frequency and percentage distribution of level of internet addiction (N=251).

Level of addiction	Score range	f	%
Mild	31–49	94	39.0
Moderate	50–79	98	40.6
Severe	80–100	59	19.6

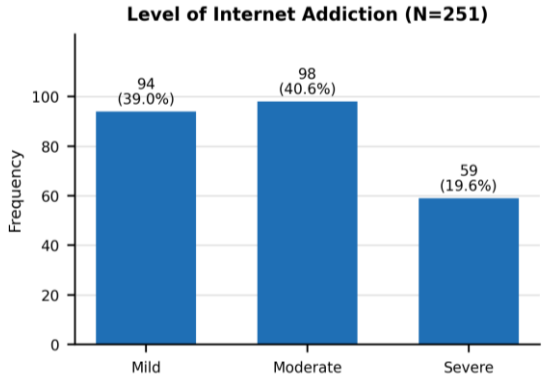


Figure 2. Bar graph showing level of internet addiction among adolescents (N=251).

Regarding quality of life, the findings are presented in Table 3 and Figure 3.

Table 3. Finding related to impact of internet addiction on quality of life (N=251).

Quality of life	Score range	f	%
Very good	1–26	0	0.0
Good	27–52	0	0.0
Neither poor nor good	53–78	93	37.0
Poor	79–104	118	47.0
Very poor	105–130	40	15.9

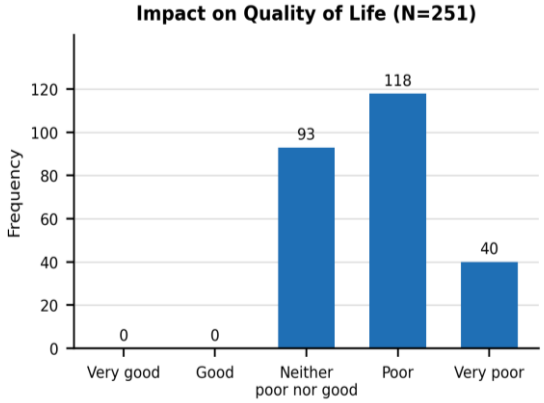


Figure 3. Bar graph showing impact of internet addiction on quality of life among adolescents (N=251).

The majority, 118 (47.0%), had poor quality of life; 93 (37.0%) had neither poor nor good quality of life and 40 (15.9%) had very poor quality of life.
The thesis reports a median of 85.89 and mean±SD of 86.01±18.11 for this section.

Table 4. Mean impact of internet addiction on quality of life across different domains (N=251).

Domain	Mean
Physical health	14.15
Psychological health	12.08
Academic performance	2.97
Other domains (labels not legible in the source file)	5.95, 8.53, 8.03
Total	45.79

Physical health had the highest mean impact (14.15), followed by psychological health (12.08); academic performance had the lowest (2.97).

Table 5. Correlation between internet addiction and impact on quality of life (N=251).

Variable	Mean	SD	Karl Pearson r	Interpretation
Internet addiction	71.88	11.97	−0.988	Strong negative
Impact on quality of life	—	20.26		

The thesis reports a strong negative correlation, indicating that as internet addiction increases, quality of life tends to decrease.

Association with socio-demographic variables: For internet addiction, significant associations were reported with age, class, hours spent online per day, duration of internet use, and type of content mostly searched. Nonsignificant associations were reported with gender, place of residence, type of family and monthly income in the thesis narrative. For impact on quality of life, significant associations were reported with age, class, monthly income, hours spent online per day, duration of internet use, and games/social-media content; non-significant associations were reported with gender, place of residence, type of family, and academic/sports/music/movies content.

Table 6. Summary of associations reported in the thesis. Where the detailed chi-square table and the later narrative differ, the inconsistency is explicitly retained rather than silently corrected.

Variable	Internet addiction	Impact on quality of life
Age	Significant	Significant
Gender	NS	NS
Class	Significant	Significant
Place of residence	NS	NS
Type of family	NS	NS
Monthly family income	NS	Significant
Hours spent online per day	Significant	Significant
Duration of internet use	Significant	Significant
Type of content mostly searched	Significant	Significant for games/social media; NS for academic, sports, music, movies

NS = non-significant (p ≥ 0.05). Variable-level labels were not legible in the source file; the rows follow the associations stated in the thesis narrative.

V. DISCUSSION

The majority, 118 (47.0%), had poor quality of life; 93 (37.0%) had neither poor nor good quality of life and 40 (15.9%) had very poor quality of life. No day, duration of internet use, and type of content mostly searched. Nonsignificant associations were reported with gender, place of residence, type of family and monthly income in the thesis narrative. For impact on quality of life, significant associations were reported with age, class, monthly income, hours spent online per day, duration of internet use, and games/social-media content; non-significant associations were reported with gender, place of residence, type of family, and academic/sports/music/movies content.

The present study was undertaken to assess internet addiction and its impact on quality of life among 300 adolescents. The findings showed a high prevalence of internet addiction, with 251 (83.7%) adolescents classified as having addiction and 49 (16.3%) not classified as addicted.

Among adolescents with internet addiction, moderate addiction was most common (40.6%), followed by mild (39.0%) and severe (19.6%). The thesis discusses these findings in relation to previous research describing internet addiction among adolescents and the effects of excessive internet use on physical, psychological and social functioning.

Quality of life was predominantly poor: 47.0% were in the poor category, 37.0% were neither poor nor good, and 15.9% were very poor. Physical health had the highest mean domain impact (14.15), followed by psychological health (12.08).

The correlation analysis reported r=−0.988, indicating a strong negative relationship between internet addiction and quality of life. This supports the study assumption that higher internet addiction is associated with poorer quality of life.

STRENGTHS

- School-based recruitment provided access to adolescents from selected schools of District Mohali.
- Standardized IAT and WHOQOL-BREF instruments were used.
- Content validity was assessed by seven experts and the thesis report's reliability coefficients of r=0.878.

LIMITATIONS

- The study was conducted in selected schools and used purposive sampling, limiting generalization.
- The thesis identifies a small sample size as a limitation and notes limited time availability for data collection.
- The cross-sectional nature of the study limits causal interpretation.

IMPLICATIONS AND RECOMMENDATIONS

- Nursing practice: Nurses can provide health education and counselling regarding balanced internet use and its effects on adolescent health.
- Nursing education: Internet addiction and healthy digital habits can be incorporated into adolescent health education.
- Nursing administration: Schools and healthcare services can support awareness and screening programmes.
- Nursing research: Similar studies can be conducted with larger samples, different settings and comparative groups.
- School and family interventions: Awareness programmes can encourage healthy internet use, balanced activities and early identification of adolescents at risk.

VI. CONCLUSION

The present study found a high prevalence of internet addiction among adolescents in selected schools of District Mohali, Punjab. Moderate addiction was the most common level. Poor quality of life was the most frequent category, and physical health showed the highest domain impact.

A strong negative correlation was reported between internet addiction and quality of life. The findings highlight the need for awareness, preventive interventions and collaboration among adolescents, parents, schools and healthcare professionals.

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