ORIGINAL RESEARCH PAPER

Psychosocial determinants of internet addiction: A cross-sectional study

Sreedevi MS, Minimol K.
[1]Research Scholar, [2]Former Associate Professor
Department of Social Work, Vimala College, (Affiliated to University of Calicut), Thrissur, India

ABSTRACT

Background: Internet addiction is a mental health concern that may adversely affect a person's life. This study aims to examine the prevalence of internet addiction and the psychosocial factors associated with it. *Materials and methods:* This cross-sectional study was conducted among high school and higher secondary students from the Thrissur district of Kerala who completed a self-administered questionnaire. The questionnaire consists of a brief sociodemographic part, questions on internet use, psychosocial factors related to internet use, Patient Health Questionnaire-9, GAD-7 and Problematic and Risky Internet Use Screening Scale (PRIUSS). SPSS 21 was used for data analysis. *Results:* According to the PRIUSS Scale, 20% of the studied population was addicted to internet. The psychosocial factors that are associated with internet addiction include anxiety, depression, fatigue, headache, eye pain/irritation, sleeplessness, daytime sleepiness, loneliness, stress, poor academic performance, poor concentration, insecurity, violence tendency and lack of self-control. *Conclusion:* The findings suggest that there is a need to intervene in the area of youth internet addiction so as to mitigate the psychosocial factors associated with it.

Keywords: Internet addiction, problematic use, adolescents, teenagers, psychosocial factors

INTRODUCTION

Internet has become an inseparable part of human life; it has both advantages and disadvantages like any other technology. The term 'Internet addiction" was first used by Dr Ivan Goldberg in 1996. Since then, countless number of researches were conducted till date on internet addiction. The prevalence rate of internet addiction varies with different population. According to our nationally representative data, 20% to 40% of our college students are at risk of internet addiction.[1] Studies shows a high prevalence among adolescents and young adults. Approximately, one-fifth of school going adolescents are at risk for internet addiction. [2]

Internet addiction is associated with negative mental health consequences, such as heightened susceptibility to depression, insomnia, social anxiety etc.[3][4][5] Poor sleep quality in students is also a predictor of internet addiction.[6] There is a positive link between impulsivity whereas internet addiction is negatively correlated with self-control.[7]

With COVID 19 pandemic and associated lock-down, internet use and the psychological correlates connected to it escalated. Internet addiction significantly predicted psychological distress, loneliness, low self-esteem and escapism.[8] A trend of increasing internet addiction, anxiety and depression was found after COVID 19 lockdown.[9][10]

Internet addiction is a common public health concern. There is a wealth of information to support both the internet's advantages and disadvantages, but less is known about how the internet affects adolescents. It is an unreported silent pandemic.[11] Despite the growing body of literature on internet addiction, there remain significant gap. There is a lack of research about the psychosocial determinants of internet addiction among adolescents. This study aims to address this gap by providing updated data on the prevalence of internet addiction among school going adolescents and the psychosocial determinants associated with it.

Access the Article Online	
DOI: 10.29120/IJPSW.2025.v16.i1.653	Quick Response Code
Website: http://pswjournal.org/index.php/ijpsw	

Address for Correspondence:
Ms. Sreedevi MS
Department of Social Work, Vimala College,
Thrissur - 680009, Kerala, India
Email: sreedevisuresh9@gmail.com

How to Cite the Article:
Sreedevi MS, Minimol K. Psychosocial determinants of internet addiction: A cross-sectional study. Indian J Psychiatr Soc Work 2025;16(1):23-7.

MATERIALS AND METHODS

The study was conducted in two different schools of Thrissur district. Purposive sampling method was used to select the sample in order to be cost and time effective. Generalization to a large population is not possible in this type of sampling. A self-administered questionnaire was distributed among students from high school and higher secondary and was collected back after completion. The questionnaire consists of a brief sociodemographic part, questions on internet use, psychosocial factors related to internet use, Patient Health Questionnaire (PHQ-9),[12] Generalised Anxiety Disorder Scale (GAD-7)[13] and Problematic and Risky Internet Use Screening Scale (PRIUSS).[14] The Patient Health Questionnaire (PHQ-9) and Generalised Anxiety Disorder Scale (GAD-7) are self-administered instrument for depression and anxiety respectively. The Problematic and Risky Internet Use Screening Scale (PRIUSS) was designed for use in adolescents, and reflects a data-driven, conceptual framework of the nature of Problematic Internet Use (PIU) as a component of adolescent and young adult health.[14] The tools were not validated and modified. IBM Statistical Package for the Social Sciences version 21 (SPSS 21) was used for data analysis.

RESULTS

100 students from two schools of Thrissur district participated in the study, of which 56 were female. The average age of the participants was 14.85. Out of the studied participants, 20% of the students were found to be internet addicted. The participants' gender didn't significantly differ (male internet addicts-20.45%, female internet addicts-19.64%) in terms of internet addiction. Rural participants had the highest internet addiction rate than urban (Rural-21.69%, urban-11.76%). Participants whose mothers are well educated (PG and above-42.86%) were more addicted to internet than others (Degree/Diploma-17.95%, Higher secondary-18.2%, SSLC-12.5%, below SSLC-0%). The children of self-employed mothers had higher internet addiction rate (28.5%) followed by children whose mothers are daily wage workers (25%), house wives (23%), Government employees (16.67%) and private sector employees (9.5%). Most of the family members (100% of mothers, 80% of fathers, 90% of siblings) of participants addicted to internet were internet users. Most of the internet addicts (85%) use mobile phones for using internet.

Table 1: Factors associated with IA and the percentage of participants reported.

Factors associated with IA	%
Fatigue	35
Headache	40
Eye pain/irritation	50
Sleeplessness	40
Daytime sleepiness	40
Loneliness	50
Stress	40
Poor academic performance	65
Poor concentration	60
Self-destructive behaviour	30
Insecurity	30
Violence tendency	35
Lack of self-control	65

As shown in Table 1, not less than 30% of the internet addicts face psychosocial as well as physical distress such as violence tendency, poor academic performance, headache, fatigue etc.

Table 2 Impact of Internet Addiction on Anxiety and Depression

	R	R^2	Adjusted R^2	Std. Error
Anxiety score	.703[a]	.495	.489	4.360
Depression score	.715	.512	.507	3.359

a. Predictors: (Constant), Internet Addiction Score

Internet addiction scores are strong predictors of both anxiety and depression, as indicated by the high R and R^2 values (Table 2).

Table 3: Regression analysis of internet addiction and depression

Variable	Coefficient	Standard Error	T value	P value
Intercept	7.493	0.525	14.275	.000
Internet addiction score	.267	0.026	10.133	.000

Note: Dependent variable- Depression score

The regression analysis indicates that Internet Addiction is a significant predictor of depression. The positive coefficient (B = 0.267) and high t-value (t = 10.133) highlight a strong positive relationship between internet addiction and depression.

Table 4: Regression analysis of internet addiction and anxiety

Variable	Coefficient	Standard Error	t value	p value
Intercept	9.354	0.681	13.731	.000
Internet addiction score	0.335	0.034	9.792	.000

Note: Dependent variable- Anxiety score

The regression analysis of internet addiction and anxiety score shows that the variables are correlated. The positive coefficient (B = 0.335) and high t-value (t = 9.792) highlight a strong positive relationship between internet addiction and anxiety. When internet addiction score increases anxiety score also increases. (Table 4)

These findings underscore the importance of addressing internet addiction to mitigate its adverse effects on mental health, particularly depression and anxiety.

DISCUSSION

The study assessed the prevalence of internet addiction at 20% among high school and higher secondary students, a rate that surpasses previous studies, which estimated it at 7.9% and12.5% respectively.[15][16] This discrepancy highlights the growing concern of internet addiction among adolescents, necessitating more recent and localized assessments. Most of the studies on this topic utilize the Internet Addiction Test (IAT) by Kimberly Young,[17] which classifies results into mild, moderate, and severe categories of addiction.

A closer examination of significant studies indicates differing prevalence rates depending on the population studied. For instance, a study of nursing students reveals that the majority (48.1%) of participants had no IA, while 32.2%, 18.2%, and 1.6% had mild, moderate, and severe IA, respectively.[18] Another study among adolescents reveals that majority (70%) of the participants are normal internet users and that 23% had a mild addiction, 6% had a moderate addiction and 0.5% had a severe addiction.[19] These data highlight the wide range of internet addiction prevalence across different demographic groups.

Interestingly, the current study found no significant impact of gender on internet addiction, which contrasts with previous research. For example, a study conducted in rural Southern Karnataka reported that female students were 4.5 times more likely to become internet addicts.[15]

Furthermore, consistent with several research, the results indicate a considerable relationship between internet addiction and depression and anxiety. Participants with internet addiction reported daytime sleepiness and sleeplessness. Numerous researchers have examined the relationship between internet addiction and sleep quality and discovered a correlation.[20][21] A study of medical students found that individuals with Internet addiction had higher average sleep quality scores compared to other groups ($p = 0.026$). The group at risk of Internet addiction had substantially higher average scores for subjective sleep quality ($p = 0.04$), sleep disruptions ($p = 0.005$), and sleep medicine usage ($p < 0.001$). Individuals with Internet addiction showed substantially higher average scores for habitual sleep efficiency ($p = 0.037$) compared to those at risk or without addiction.[22]

Implications: The findings of the study suggest that internet addiction is a growing concern among adolescents which needs to be addressed. It has numerous mental, physical and social concerns associated with it.

Recommendations: Given the detrimental effects of internet addiction, recommendations for interventions in the field are necessary. Several researchers have studied the effectiveness of certain interventions in the field. One of the early interventions was Cognitive Behaviour Therapy. Motivational Interviewing, psychoeducation, Solution focused group counselling, Acceptance and Commitment therapy etc have also been found effective.

Limitations: The study included a smaller number of participants. Also, the sampling

technique used was purposive sampling. Therefore, generalization to a larger population is not possible.

CONCLUSION

The findings of the study indicate a significant prevalence of internet addiction among school going students in Thrissur district of Kerala with no gender difference. Numerous psychosocial factors influencing internet addiction have been identified. Participants' place of residence, mother's education, mother's occupation, other family members internet use, availability of mobile phones, all these factors have an influence of internet addiction among students. Physical discomforts such as eye pain/irritation, headache, fatigue as well as psychological elements such as loneliness, lack of self-control, poor concentration, stress, insecurity, violence tendency, self-destructive behaviours have been reported by students who have internet addiction. Sleep problems such as sleeplessness and day-time sleepiness were also reported. Mental health issues such as anxiety and depression have been identified.

Financial support and sponsorship: Nil.

Conflicts of interest: None

Ethical committee approval: Not taken

REFERENCES

1. Joseph J, Varghese A, VR V, Dhandapani M, Grover S, Sharma S, et al. Prevalence of internet addiction among college students in the Indian setting: a systematic review and meta-analysis. General Psychiatry. 2021;34(4): e100496.
2. Joseph J, Varghese A, Vijay VR, Dhandapani M, Grover S, Sharma SK, et al. Problematic Internet Use Among School-Going Adolescents in India: A Systematic Review and Meta-Analysis. Indian J Community Med. 2022;47(3):321.
3. Yadav K, Jain A, Sharma R, Gaur K, Yadav N, Sharma P, et al. Study of internet addiction and its association with depression and insomnia in university students. J Family Med Prim Care. 2020;9(3):1700.
4. Jaiswal A, Manchanda S, Gautam V, Goel AD, Aneja J, Raghav PR. Burden of internet addiction, social anxiety, and social phobia among university students, India. J Family Med Prim Care. 2020;9(7):3607-12.
5. Chen HC, Wang JY, Lin YL, Yang SY. Association of Internet Addiction with Family Functionality, Depression, Self-Efficacy and Self-Esteem among Early Adolescents. Int J Environ Res Public Health. 2020;17(23):8820.
6. Venugopal L, R P, Murugaiyan S, I H. Internet Addiction and Sleep Quality Among School Children in South India. Cureus. 2024;16(9):e68953.
7. Li S, Ren P, Chiu MM, Wang C, Lei H. The Relationship Between Self-Control and Internet Addiction Among Students: A Meta-Analysis. Frontiers in Psychology. 202;12.
8. Fernandes B, Uzun B, Aydin C, Tan-Mansukhani R, Vallejo A, Saldaña-Gutierrez A, et al. Internet use during COVID-19 lockdown among young people in low- and middle-income countries: Role of psychological wellbeing. Addict Behav Rep. 2021;14:100379.
9. Roy P, Deb N. Internet addiction, depression, anxiety and stress among first year medical students after COVID-19 lockdown: A cross-sectional study in West Bengal, India. J Family Med Prim Care. 2022;11(10):6402.
10. Abu M, Pervin I, Md. Khalid Syfullah, Ali A, Mahmud A, Hasan M, et al. Post-COVID-19 internet addiction, depression, and pornography addiction among adolescents: Findings from a nationwide study in Bangladesh. Health Science Reports. 2024;7(7):e2272. doi: 10.1002/hsr2.2272
11. Abbas H, Rasheed N, Mani UA, Kumar M. Internet addiction among MBBS students at a New Delhi medical college: Prevalence and determinants of a silent pandemic. J Family Med Prim Care. 2024;13(2):730-35.
12. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med. 2001;16(9):606-13. doi: 10.1046/j.1525-1497.2001.016009606.x.
13. Spitzer RL, Kroenke K, Williams JB, Löwe B. A brief measure for assessing generalized anxiety disorder: the GAD-7.

Arch Intern Med. 2006;166(10):1092-7. doi: 10.1001/archinte.166.10.1092.
14. Moreno MA, Jelenchick LA, Christakis DA. Problematic internet use among older adolescents: A conceptual framework. Computers in Human Behavior. 2013;29(4):1879–87.
15. Kumar N, Aaditya Ruhela. Prediction of internet addiction among high school students in a rural Southern Karnataka, India-A cross-sectional study. J Educ Health Promot. 2024;13(1):125. doi: 10.4103/jehp.jehp_1001_23
16. Mihara S, Osaki Y, Nakayama H, Sakuma H, Ikeda M, Itani O, et al. Internet use and problematic Internet use among adolescents in Japan: A nationwide representative survey. Addict Behav Rep. 2016;4:58–64.
17. Young KS. Internet Addiction: The Emergence of a New Clinical Disorder. Cyber Psychology & Behavior 1998;1(3):237-44.
18. Kumbhakar S, Parmar J. Prevalence of internet addiction and its impact on selected psychological parameters among UG nursing students. J Educ Health Promot. 2022;11(1):407.
19. Kayastha B, Gurung A, Chawal R. A Descriptive Study to Assess the Level of Internet Addiction among Adolescents: A Case Study of High Schools in Mangalore. J Child Adolesc Behav. 2018;06(03).
20. Awasthi AA, Taneja N, Maheshwari S, Gupta T, Bhavika. Prevalence of Internet Addiction, Poor Sleep Quality, and Depressive Symptoms Among Medical Students: A Cross-Sectional Study. Osong Public Health Res Perspect. 2020;11(5):303–8.
21. Venugopal L, Priyadharsini R, Murugaiyan S, Harini I, Lalitha V, Rajendran P. Internet Addiction and Sleep Quality Among School Children in South India. Cureus. 2024;16(9):e68953.
22. Kashf SM, Karami H, Jafari F, Daliri M, Yazdankhah M, Kamyab A, et al. Internet addiction and sleep disorders among medical students. Sci World J. 2023;2023:6685676.

Received on: 08-11-2024

Revised on: 10-12-2024

Accepted on: 23-01-2025

Published on: 24-02-2025