Journal of Neonatal Surgery
ISSN(Online): 2226-0439
Vol. 14, Issue 4 (2025)
https://www.jneonatalsurg.com

OPEN ACCESS

A Co-Relational Study To Assess The Relationship Between Internet Addiction And Mental Health Status Among Adolescents In Selected Schools Of Pune City

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Cite this paper as: Ms. Kanchan Shinde, Dr. Bhagyashree Jogdeo, Mrs. Sharmila Kulal, (2025) A Co-Relational Study To Assess The Relationship Between Internet Addiction And Mental Health Status Among Adolescents In Selected Schools Of Pune City. *Journal of Neonatal Surgery*, 14 (4), 347-351.

ABSTRACT

Introduction: With the rapid growth of digital technology, adolescents are increasingly exposed to prolonged internet usage, raising concerns about its impact on their mental health. Internet addiction is defined as excessive or poorly controlled preoccupations, urges, or behaviours regarding computer use and internet access that lead to impairment or distress.

The present study title: The main aim of the study was toassess the relationship between internet addiction and mental health status among adolescents in selected schools of Pune city."

Material and methods: A quantitative, non-experimental descriptive co-relational design was used with a sample of 300 adolescents (aged 14–16 years), selected through non-probability purposive sampling. Data were collected using the Internet Addiction Test (IAT) and a Mental Health Inventory (MHI.

Result: The demographic analysis of 300 adolescents showed that 56% were aged 15–16 years and 53.7% were male. Most students (42.7%) were in the 9th standard. In terms of parental education, 42.3% of mothers had completed secondary education, while 78% of fathers had higher education. The majority (65.3%) had a family income between ₹20,001–₹25,000, and 58.3% were from nuclear families. Smartphone usage was reported by 98%, and 73% received related knowledge from hospitals. Findings showed that 60% had moderate and 22% had high internet addiction, while 35% demonstrated poor mental health. A significant negative correlation was found between internet addiction and mental health ($r = -0.62$, $p < 0.01$). Age and screen time were significantly related to addiction, while gender, income, and school type showed no such link.

Conclusion: The study confirms that increased internet use is linked to declining mental health among adolescents. The results underscore the need for preventive interventions, digital literacy programs, and school-based mental health support to foster healthy digital habits and emotional well-being.

Keywords: *Internet Addiction, Mental Health, Adolescents.*

1. INTRODUCTION

The digital revolution has dramatically transformed the way individuals, especially adolescents, engage with the world. With the widespread availability of smartphones, high-speed internet, and social media platforms, adolescents are spending an increasing amount of time online for academic, recreational, and social purposes. While this technological shift has brought numerous benefits, it has also introduced a new set of challenges—most notably, internet addiction.[1]

Internet addiction is defined as excessive or poorly controlled preoccupations, urges, or behaviours regarding computer use and internet access that lead to impairment or distress. Among adolescents, this may manifest as compulsive gaming, endless scrolling through social media, or continuous web browsing—often at the expense of sleep, academics, social relationships, and mental well-being.[2]

Adolescents are in a crucial phase of identity formation, emotional regulation, and cognitive development. Their susceptibility to peer influence, coupled with the neurological sensitivity of the teenage brain to instant gratification and reward systems, makes them particularly vulnerable to addictive digital behaviours. Research from across the globe has started to link excessive internet use with mental health issues such as depression, anxiety, stress, attention deficits, and low self-esteem.

In the Indian context, while digital accessibility continues to grow at an exponential rate, the implications for adolescent mental health are not yet fully understood or documented. Pune, a rapidly growing educational and technological hub, is home to a large number of school-going adolescents who are exposed to both academic pressures and digital distractions. Despite this, few localized studies have examined how internet addiction might be affecting their mental health.[3]

2. NEED OF STUDY

The rapid integration of digital technology into adolescents' daily lives has created a double-edged sword—facilitating access to information and connectivity, while simultaneously heightening the risk of internet overuse and digital dependency. As digital natives, adolescents are particularly susceptible to compulsive online behaviour due to their developmental vulnerability and extensive engagement with social media, gaming platforms, and streaming content. The COVID-19 pandemic dramatically intensified this exposure, as prolonged online learning, reduced physical interaction, and increased screen reliance led to the normalization of excessive internet use among youth.[5]The number of Internet users' worldwide had increased from 360 million in December 2000 to 4208 million in June 2018. It shows that worldwide internet penetration rate was 55.1% in June 2018. In Asia, it had increased from 114 million to 2062 million in June 2018 which indicates that the internet penetration rate in Asia was 48.99%. It represents 49.01% of internet users are only in Asia. In case of India, there were about 462 million internet users in June 2018 as compared to 5 million in 2000, so the internet penetration in India is 34.1% of the population, which represents 22.4% of internet users of Asia.[6]

Recent research conducted by Vishnu Hari, Nancy on A Correlation Study on the Effect of Internet Addiction on Depression Among Adults at Selected College, Rajkot. As an intervention I administered the Internet addiction scale among the samples and identified the level of Internet addiction among them and then administered the depression scale for the purpose of assessing the level of depression among the internet addicted individuals. The collected data were analysed by using both descriptive and inferential statistical methods, 'r' test was used to evaluate relationship between internet addiction and depression. The obtained 'r' value was 0.4749 which showed high significance at 0.001 level. Hence findings of the study revealed that there was a significant relationship between the internet addiction and depression and also there was significant association between the mean difference in Internet Addiction and daily usage of the internet (c2=20.028),purpose of use ((c2=59.20) and Money spend on internet (c2=19.12) and there was significant association between the mean difference depression and daily usage of the internet (c2=26.24and Time frame for using internet (c2=23.05).[7]

Given that adolescence is a crucial stage for emotional and cognitive development, early detection and understanding of digital behavior patterns are essential. Recognizing the psychological consequences of internet overuse can help schools, parents, and mental health professionals implement targeted interventions. This study not only contributes to academic research but also aligns with broader public health priorities by promoting digital wellness and adolescent mental health—a growing necessity in today's hyper-connected world.

3. AIM OF THE STUDY

The main aim of the study was to arelationship between internet addiction and mental health status among adolescents in selected schools of Pune city.

4. METHODOLOGY

This study followed a quantitative, non-experimental descriptive design to examine the relationship between internet addiction and mental health status among adolescents. Conducted in selected lower secondary schools of Pune city, the research targeted middle adolescents aged 14 to 16 years. The accessible population included students from English medium schools who used smartphones regularly. Those absent during data collection were excluded. 300 participants were selected using a non-probability purposive sampling technique, based on defined inclusion criteria. This method ensured a focused analysis of digital behaviour and mental well-being in the adolescent age group.

5. RESULT

SECTION I: DESCRIPTION OF DEMOGRAPHIC PROFILE

The demographic profile of the 300 adolescent participants revealed several key characteristics. A majority, 168 students (56%), belonged to the 15–16 years age group, while 161 (53.7%) were male. In terms of academic level, 128 students (42.7%) were enrolled in the 9th standard. Regarding parental education, 127 participants (42.3%) reported that their mothers had completed secondary education, whereas a significant majority, 234 students (78%), stated that their fathers had education above the secondary level. In terms of economic background, 196 participants (65.3%) came from families with a monthly income ranging between ₹20,001 and ₹25,000. The data also showed that 175 students (58.3%) were from nuclear families. Almost all respondents, 294 students (98%), reported using smartphones, and 215 students (73%) indicated that they received knowledge related to mental health and internet use primarily through hospitals.

SECTION II: FINDING RELATED ASSESS LEVEL OF INTERNET ADDICTION AMONG ADOLESCENTS

Table no 1: Distribution of Students Based on Internet Addiction Levels.

Internet Addiction Level	Number of Students	Percentage
Minimal or No Addiction	54	18
Moderate Addiction	180	60
High Addiction	66	22
Total	300	100

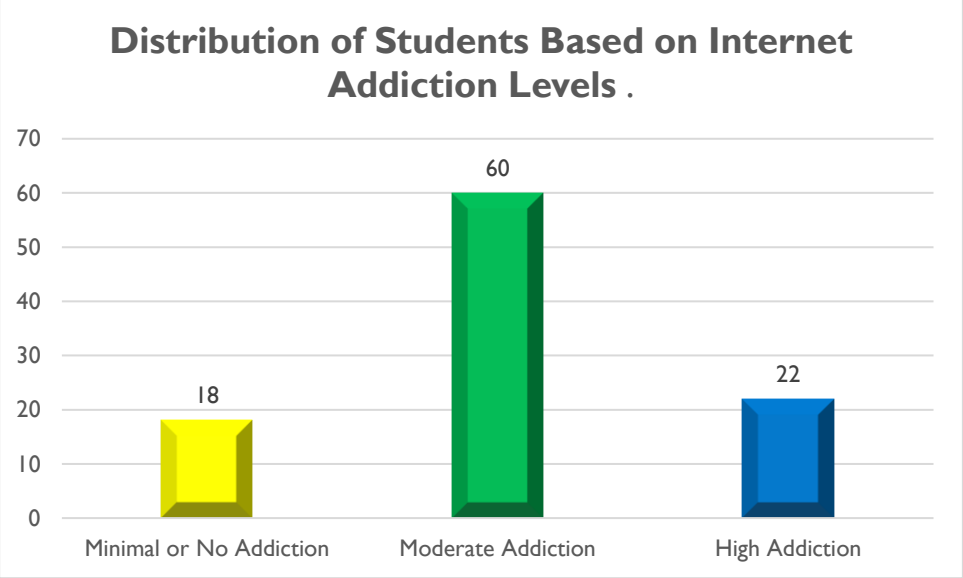


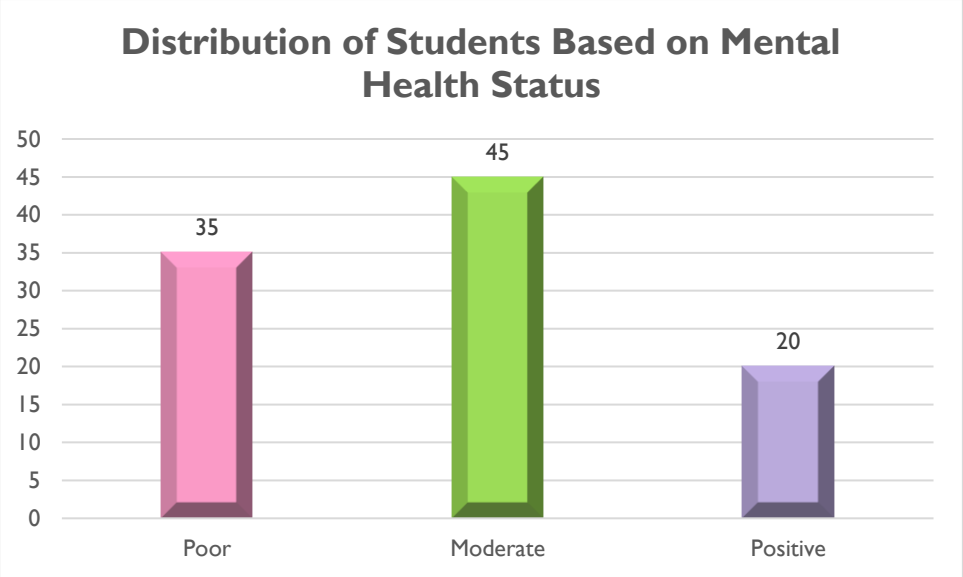
Figure no.1:Distribution of Students Based on Internet Addiction Levels.

Descriptive analysis of the responses from 300 adolescents revealed that the majority, 180 students (60%), exhibited moderate levels of internet addiction, indicating frequent usage patterns with signs of dependency. Additionally, 66 students (22%) were identified in the high addiction category, often reporting behavioral symptoms such as academic decline, sleep disturbances, and social withdrawal. In contrast, only 54 students (18%) were found to have minimal or no signs of addiction, suggesting relatively healthy internet use habits

SECTION III:FINDING RELATED TO MENTAL HEALTH STATUS AMONG ADOLESCENTS

Table 2: Distribution of Students Based on Mental Health Status

Mental Health Status	Number of Students	Percentage
Poor	105	35
Moderate	135	45
Positive	60	20
Total.	300	100%



Graph no.2:Distribution of Students Based on Mental Health Status

Based on the Mental Health Inventory (MHI) scores, the analysis revealed that 105 students (35%) exhibited poor mental health, often marked by symptoms such as stress, irritability, and emotional instability. A larger segment, 135 students (45%), demonstrated a moderate level of mental well-being, indicating the presence of some emotional challenges but generally stable functioning. Meanwhile, only 60 students (20%) reflected positive mental health.

SECTION III: FINDING RELATED TO CORRELATION BETWEEN INTERNET ADDICTION AND MENTAL HEALTH STATUS

The study revealed a significant negative correlation between internet addiction and mental health status among adolescents, with a correlation coefficient of $r = –0.62$ ($p < 0.01$). This finding clearly indicates that as the level of internet addiction increased, the overall mental health of the participants declined. Adolescents with higher internet dependency were more likely to exhibit symptoms such as emotional instability, anxiety, reduced social interaction, and increased stress levels.

SECTION IV: TO FIND THE ASSOCIATION BETWEEN INTERNET ADDICTION AND SELECTED DEMOGRAPHIC VARIABLES

The Chi-square test was conducted to examine the association between internet addiction levels and selected demographic variables. The analysis revealed a significant association with age and daily screen time ($p < 0.05$), indicating that older adolescents and those who spent more time online were more likely to exhibit higher levels of internet addiction. However, no significant association was found between internet addiction and other variables such as gender, socioeconomic status, or type of school ($p > 0.05$).

6. DISCUSSION

The findings of this study reveal a clear connection between internet addiction and mental health status among adolescents in selected schools of Pune city. A large proportion of the participants exhibited moderate to high levels of internet addiction, while a significant number also reported poor mental health, raising red flags about the psychological consequences of excessive digital engagement in this age group.

The study found a significant negative correlation between internet addiction and mental health ($r = –0.62$, $p < 0.01$), indicating that higher levels of internet use were associated with lower emotional and psychological well-being. This aligns with research by Kuss and Griffiths (2017), who concluded that excessive internet use is linked to anxiety, depression, and social dysfunction in adolescents.[8] Similarly, Anderson et al. (2017) emphasized the risk of emotional deregulation and psychological distress in youth who spend extended hours online.[9]The current study also revealed that age and daily screen time had a statistically significant association with internet addiction, suggesting that older adolescents and those using digital devices for longer durations were more likely to develop addictive behaviours. Yuan et al. (2011), who observed that older adolescents showed greater vulnerability to internet-related compulsions, support this finding. Interestingly, no significant relationship was found between internet addiction and other variables such as gender, socioeconomic status, and school type, implying that internet addiction is a cross-cutting issue that transcends basic demographic differences.[10] This is in line with findings from Durkee et al. (2012), who noted that while certain behavioural patterns may vary by gender, the overall prevalence of problematic internet use is widely distributed among adolescents.[11]

7. CONCLUSION

The present study concludes that there is a strong inverse relationship between internet addiction and mental health status among adolescents. A significant proportion of participants exhibited moderate to high levels of internet addiction, which was found to be negatively correlated with emotional well-being, social functioning, and overall psychological health. Additionally, age and screen time were identified as key factors associated with higher addiction levels, emphasizing the need for early intervention.

Recommendations

Applying the intervention for a longer duration of time and taking follow up after specific intervals.

Conflict of Interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

Funding Source

There is no funding Source for this study

Acknowledgement:

Most sincerely convey our deep sense of gratitude to Dr. Mrs. Bhagyashree Jogdeo for remarkable guidance and academic support during this study. At last we are grateful about the support and help we got throughout the research study from our principal and participants contribute to accomplishing the research study successfully.

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