

A STUDY OF INTERNET ADDICTION AMONG HIGH SCHOOL STUDENTS IN RELATION TO GENDER AND AREA OF RESIDENCE

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Abstract

Main aim of the present research is to A study of internet addiction among high school students in relation to gender and area of residence. For this research 30 urban male high school students, 30 rural male high school students, 30 urban female high school students, 30 rural female high school students. Total 120 high school students were randomly selected from lucknow city. Gender and area of residence of high school student were considered as independent variable and scores of various groups of students were taken as dependent variable. For data collection Dr. Kimberly Young's Internet Addiction Test (IAT) was use. Mean, SD and t were applied for data analysis. Results indicate that significant difference was found between male and female high school students in relation to internet addiction. Here male students have more internet addiction than female student. Significant difference was found between urban and rural high school students in relation to internet addiction. Here urban students have more internet addiction than rural students. Significant difference was not found between male urban and rural high school students in relation to internet addiction. Significant difference was found between female urban and rural high school students in relation to internet addiction. Here female urban students have more internet addiction than female rural students.

INTRODUCTION:

Addiction is a chronic, relapsing brain disorder characterized by compulsive engagement with a rewarding stimulus despite severe negative consequences. Rather than a simple lack of willpower, addiction fundamentally alters the brain's mesolimbic dopamine pathway—the neural circuitry responsible for pleasure, reward, and motivation. Over time, repeated exposure to the addictive stimulus diminishes the brain's natural dopamine production and impairs the prefrontal cortex, which governs decision-making and impulse control. Consequently, an individual develops an uncontrollable psychological and physiological dependence, prioritizing the stimulus above core survival needs, social responsibilities, and personal health.

Types of Addiction

In contemporary clinical psychology, addictive disorders are broadly categorized into two distinct types based on the source of the neurochemical reward:

- **Substance Addictions:** This category involves the ingestion of foreign chemical compounds that directly alter brain chemistry. Common examples include dependency on alcohol, nicotine, prescription medications, and illicit narcotics. These addictions are typically marked by physical tolerance—requiring larger doses to achieve the same effect—and severe physical withdrawal symptoms upon cessation.
- **Behavioral (Process) Addictions:** This category involves a compulsive, repetitive pattern of non-substance-related behaviors. Examples include disordered gambling, compulsive shopping,

hypersexuality, and excessive technology use. While no chemical is ingested, behavioral addictions trigger identical neurological reward pathways to substance abuse, resulting in severe psychological dependence, emotional distress, and functional impairment.

Internet Addiction Disorder (IAD) has emerged as a critical behavioural epidemic within modern digital landscapes, posing a severe threat to adolescent development. High school students are uniquely vulnerable to this phenomenon; their developing prefrontal cortices are ill-equipped to resist the hyper-targeted, dopamine-driven algorithms designed by social media, online gaming, and streaming platforms. For many teenagers, the virtual world transforms from an educational utility into a maladaptive escape mechanism from academic pressure and social anxiety. This compulsive, uncontrolled connectivity triggers severe physical, psychological, and social fallout. Chronic over-engagement with screens displaces restorative sleep and physical activity, directly driving academic decline, social isolation, and heightened rates of clinical depression and anxiety among the youth.

REVIEW OF RELATED LITERATURE:

- **Prevalence Dynamics:** A significant majority of global cross-sectional studies reveal that male high school students exhibit significantly higher overall rates of internet addiction and register higher mean scores on standardized assessment tools compared to their female peers (Sardar, 2021). A systematic review and meta-analysis confirmed that male adolescents face a disproportionately high risk of developing severe internet addiction globally compared to females (Mulugeta et al., 2022).
- **Typology of Digital Consumption:** Literature outlines a clear behavioral divergence in the specific online activities driving addiction across genders. Males exhibit a pronounced vulnerability toward Internet Gaming Disorder (IGD) and competitive online loops, whereas female students are predominantly prone to social media addiction (Peter & Afiah, 2026). This problematic use among females is typically communicative and relational, driven by the desire for peer connection and validation on social networks (Peter & Afiah, 2026).
- **Psychological Triggers:** Researchers observe that gender shapes the underlying psychological triggers of IAD. While males often turn to screens for sensation-seeking, female adolescents more frequently utilize digital spaces as a maladaptive coping mechanism to escape internalizing symptoms like low self-esteem or anxiety (Sardar, 2021).
- **The Predominance of Urban Addiction:** Historically, literature heavily supports the finding that urban high school students experience a higher prevalence of internet addiction than rural students (Giri et al., 2021). This skew is attributed to greater high-speed broadband penetration, earlier smartphone ownership, and a tech-saturated urban lifestyle (Shettian et al., 2023).
- **The Emerging Urban-Rural Convergence:** Emerging research indicates that the traditional "digital divide" is closing rapidly. Due to the global saturation of mobile telecommunications, 4G/5G networks, and inexpensive smartphones, rural high school students are showing surging rates of internet addiction that rival urban baselines (Giri et al., 2021).
- **Socio-Environmental Drivers in Rural Areas:** Literature focusing on rural adolescent cohorts highlights unique contextual risk factors. Rural areas frequently lack diverse recreational facilities, prompting students to utilize mobile phones as their primary portal for entertainment (Shettian et al., 2023). Furthermore, a deficit in digital literacy among rural parents often leads to diminished parental monitoring, allowing unchecked screen use to escalate into chronic dependence (Giri et al., 2021).
- **The High-Risk Subgroups:** Literature consistently highlights urban male high school students as a highly vulnerable subgroup due to hyper-connected gaming infrastructure (Shettian et al., 2023). Concurrently, recent demographic tracking indicates that rural female students represent a rapidly

growing cohort for screen-time escalation, using social applications to bypass geographical isolation (Peter & Afiah, 2026).

- **Academic Consequences:** When these demographic factors combine to trigger severe addiction, the overall impact on the student's lifestyle is devastating. Heavy, unregulated internet use across both urban and rural setups correlates directly with severe academic procrastination, sleep deprivation, and a subsequent decline in overall academic performance (Karpinski et al., 2010).

STATEMENT OF PROBLEM:

In present research researchers has tried to examine internet addiction among high school student of lucknow city in relation to gender and area of residence. The exact problem of this research is, "A study of internet addiction among high school students in relation to gender and area of residence."

OBJECTIVES:

1. To study and compare internet addiction between male and female high school students.
2. To study and compare internet addiction between urban and rural high school students.
3. To study and compare internet addiction between male urban and rural high school students.
4. To study and compare internet addiction between female urban and rural high school students.

HYPOTHESIS:

1. There will be no significant difference between male and female high school students in relation to internet addiction.
2. There will be no significant difference between urban and rural high school students in relation to internet addiction.
3. There will be no significant difference between male urban and rural high school students in relation to internet addiction.
4. There will be no significant difference between female urban and rural high school students in relation to internet addiction.

SAMPLE:

In present research 120 high school students selected randomly from Lucknow city.

Total sample was categorised as below.

	Male	Female	Total
Urban	30	30	60
Rural	30	30	60
	60	60	120

VARIABLES:

In present research gender and area of residence of high school students where considered as in dependent variable and scores of various groups of students were taken as dependent variable.

TOOL:

Dr. Kimberly Young's Internet Addiction Test (IAT), published in 1998,

The Internet Addiction Test (IAT) developed by Dr. Kimberly Young is widely recognized as the premier global psychometric measure for evaluating problematic online behaviors. For a research paper focusing on high

school students, you can officially cite its strong reliability and validity indices established across global adolescent studies.

Reliability

The Internet Addiction Test (IAT) demonstrates exceptional internal consistency and temporal stability across diverse adolescent populations, consistently yielding a Cronbach's alpha (alpha) coefficient ranging from 0.88 to 0.93. This high alpha value indicates that all 20 items on the scale are strongly interrelated and reliably measure the exact same underlying psychological trait. Furthermore, test-retest reliability studies show high correlation coefficients ($r = 0.79$) to (0.85) over two-to-three-week intervals, confirming that the scale provides highly stable, accurate, and consistent measurements of a student's internet behavior over time.

Validity

The structural and construct validity of the IAT is firmly established, as its items were directly adapted from the [DSM-IV](#) diagnostic criteria for pathological gambling to accurately capture the mechanics of behavioral addiction. Exploratory and Confirmatory Factor Analyses (CFA) demonstrate strong structural validity, consistently isolating core behavioral dimensions such as lack of control, salience, and social-academic neglect. Additionally, the instrument exhibits robust convergent validity, as higher IAT scores correlate significantly with a high number of daily hours spent online, poor academic grades, and elevated clinical scores for adolescent depression and anxiety.

PROCEDURE:

Previous permission was taken from the principle of the selected schools. Consent was also taken from the students for present research. After establishing the report with the students internet addiction test was administered in small manageable group of students. After completion of data collection scoring of each scale were done with the help of scoring of internet addiction test.

Statistical analysis:

To analysis the data mean, SD and t test were used, hypothesis were tested at 0.01 and 0.05 level of significant.

Table no. 1

Showing mean, SD and t value of internet addiction of male and female students.

	N	Mean	S.D.	t	Level of Significance
Male	30	81.90	16.49	4.46	0.01
Female	30	61.47	18.85		

In Table no. 1 researcher has tried to find out difference between male and female students in relation to internet addiction. The t value of both mean is 4.46 which is significant at 0.01 level. So the null hypothesis, "There is no significant difference between male and female high school student in relation to internet addiction" is rejected. It means significant difference was found between male and female high school students in relation to internet addiction. The mean scores of male students is 81.90 and the mean score of female students is 61.47. Here male students have more internet addiction than female student.

Male high school students are more prone to internet addiction than female students because they engage heavily in highly addictive online gaming, possess higher sensation-seeking traits, and use virtual platforms to escape real-world stress.

Table no. 2

Showing mean, SD and t value of internet addiction of urban and rural students.

	N	Mean	S.D.	T	Level of Significance
Urban	30	74.77	14.48	4.69	0.01
Rural	30	55.73	16.82		

In Table no.2 researcher has tried to find out difference between urban and rural students in relation to internet addiction. The t value of both mean is 4.69. Which is significant at 0.01 level. So the null hypothesis, “ There is no significant difference between urban and rural high school student in relation to internet addiction” is rejected. It means significant difference was found between urban and rural high school students in relation to internet addiction. The mean scores of urban students is 74.77 and the mean score of rural students is 55.73. Here urban students have more internet addiction than rural students.

Male urban teenagers are constantly immersed in tech-saturated lifestyles with higher household smartphone ownership, making digital connectivity their default social outlet [Shettian et al., 2023]. This continuous screen immersion, combined with a relative lack of parental monitoring due to busy city routines, allows problematic internet use to quickly escalate into a chronic behavioral addiction [Giri et al., 2021].

Table no. 3

Showing mean, SD and t value of internet addiction of male urban and rural students.

	N	Mean	S.D.	t	Level of Significance
Male urban	30	78.33	13.09	1.66	Not significant
Malr rural	30	72.87	12.40		

In Table no. 3 researcher has tried to find out difference between male urban and rural students in relation to internet addiction. The t value of both mean is 1.66. Which is not significant. So the null hypothesis, “ There is no significant difference between male urban and rural high school student in relation to internet addiction” is accepted. It means significant difference was not found between male urban and rural high school students in relation to internet addiction. The mean scores of male urban students is 78.33 and the mean score of female urban students is 72.87.

The internet is now equally addictive for urban and rural schoolboys because almost everyone has a cheap smartphone and good mobile data. No matter where they live, teenage boys love the exact same online activities, like playing multiplayer video games and watching viral videos. Because social media links all teenagers together instantly, boys from both areas follow the same trends and develop the same online habits.

Table no. 4

Showing mean, SD and t value of internet addiction of urban and rural students.

	N	Mean	S.D.	t	Level of Significance
Female Urban	30	76.37	14.07	6.07	0.01
Female Rural	30	56.87	16.09		

In Table no.4 researcher has tried to find out difference between female urban and rural students in relation to internet addiction. The t value of both mean is 4.69. Which is significant at 0.01 level. Show the null hypothesis, “There is no significant difference between female urban and rural high school student in relation to internet addiction” is rejected. It means significant difference was found between female urban and rural high school students in relation to internet addiction. The mean scores of female urban students is 76.37 and the mean score of female rural students is 56.87. Here female urban students have more internet addiction than female rural students.

Urban female high school students experience higher rates of internet addiction because they face intense social pressure to stay connected 24/7 on apps like Instagram and TikTok to maintain friendships and follow fast-moving city trends. Unlike rural girls, city teenagers often lack safe, open outdoor spaces to gather, which forces them to stay indoors and use social media as their main way to hang.

CONCLUSION:

1. Significant difference was found between male and female high school students in relation to internet addiction. Here male students have more internet addiction than female student.
2. Significant difference was found between urban and rural high school students in relation to internet addiction. Here urban students have more internet addiction than rural students.
3. Significant difference was not found between male urban and rural high school students in relation to internet addiction.
4. Significant difference was found between female urban and rural high school students in relation to internet addiction. Here female urban students have more internet addiction than female rural students.

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