Internet Addiction: An Analysis of Technical and Non-technical Undergraduate Students

Aiyaz Ahmad Khan[1], Sanjeev Kumar Jha[2] and Mohammad Amir Khan[3]
[1]Assistant Professor, [2]Former Consultant and [3]Research Scholar
[1]Department of Education, Aligarh Muslim University Centre Murshidabad (AMUCM), West Bengal
[2]Educational Survey Division, National Council of Educational Research and Training (NCERT), New Delhi
[3]Department of Teacher Training and Non-Formal Education, Jamia Millia Islamia (JMI), New Delhi
[1]aakhan_co@myamu.ac.in (Corresponding Author)

Abstract

The rapid expansion of internet usage particularly among students has been observed. It facilitated their academic and non-academic engagement. But it has also led to concerns about internet addiction. The study aims to assess internet addiction levels, compare addiction between male and female students across disciplines, and explore key influencing factors. A total of 207 undergraduate students from a central university in Uttar Pradesh, participated in an online survey using a self-developed Internet Addiction Scale (IAS). The reliability coefficient of IAS is 0.854, indicating a high reliability. Findings reveal significant variations in internet addiction based on gender and academic stream, with technical students exhibiting higher addiction levels. The factors include gender, age and hours spent online significantly influence the internet addiction. The study highlights the growing public health implications of internet addiction, linking it to anxiety, depression and social isolation. While previous research presents mixed findings, this study underscores the need for targeted interventions, particularly in higher education institutions. The results call for awareness programs and strategies to promote responsible internet use among students.

Introduction

Modern technology has enabled young generations to connect globally and create academic, social and personal communities. This is possible because of technology-based devices like computers, laptops, tablets, smartphones and internet connection. This results in an increase in internet usage among students, particularly in education and social media platforms. For education purposes, students can access online classes and course materials from various virtual platforms, while social media platforms like wikis, video-sharing sites, photo-sharing sites, bookmarking sites, and social networking websites facilitate their global engagement. Thus, the internet offers students a vast array of global knowledge, resources and educational materials, promoting independent and self-directed learning.

India's internet user base has grown 151 times from 5.0 million in 200 to 755 million as of March 31, 2021,

with the majority being young adults (Das and Roy, 2023). According to Kuss and Griffiths (2012), excessive and uncontrolled internet usage that adversely affects social, intellectual and psychological aspects of life is referred to as internet addiction. In other words, internet addiction denotes excessive internet use that disrupts daily activities, such as academics, relationships and overall well-being. Among the students, the cases of internet addiction are due to spending more time online. The reasons behind students' internet addiction can be multifaceted and intricate. Students often utilize the internet to escape stress, boredom, or loneliness, as it offers a convenient and easily accessible entertainment source. On the other side, they may develop severe and long-lasting internet addiction due to underlying mental health issues like anxiety or depression. There are several factors like gender, employment of father, mother's level of education, personal gadgets, use of smartphones, easy access to the internet, increased internet consumption levels, etc., have led to addiction (Sharma et al., 2018). Priya and Others (2018) suggested that internet addiction may be attributed to the high-speed internet on mobile phones.

Internet addiction is a growing global issue that affects individuals not only in India but globally. The utilisation of diverse online platforms by students has been demonstrated to have both positive and negative impacts on their academic performance. The rise in internet addiction is causing increased loneliness, anxiety and depression, especially in late adolescents and emerging adults, posing a growing public health issue. Several studies show that internet addiction significantly affects individual well-being, leading to depression, anxiety, stress, disturbed sleep patterns and distractions from physical play and social interaction (Akin and Iskender, 2011; Kathait and Singh, 2014; Krishnamurthy and Chetlapalli, 2016; Masih and Rajkumar, 2019; Sharma et al., 2018; Carte, 2018; Lebni et al., 2020; Bisht et al., 2021; Gavurova et al., 2022; Mishra et al., 2024). Nonetheless, some studies indicate no significant impacts on physical and mental health, including those conducted by Mishra et al. (2015), Lodha (2018), and Das and Roy (2023). This study has attempted to understand internet addiction among undergraduate technical and non-technical students, as both are pursuing academic goals.

Relevant Prior Research

Numerous research studies have been conducted domestically and internationally on the topic of internet addiction. According to Akin and Iskender (2011), internet addiction is positively related to despair, stress and anxiety among university students. Kathait and Singh (2014) found that among young people, online addiction is strongly associated with psychological symptoms like sadness, anxiety, irregular sleep patterns, and social isolation. Additionally, high levels of internet addiction increase susceptibility to these problems. Krishnamurthy and Chetlapalli (2016) studied the risk factors of internet addiction among college students in Bengaluru, Silicon Valley of India. They found that excessive internet use is a growing public health issue, negatively impacting physical, mental and social well-being, highlighting the need for effective prevention and treatment.

Masih and Rajkumar (2019) summarised that excessive internet use leads to Internet Addiction Disorder (IAD), which negatively impacts the mental health of adolescents. Further, they added that high levels of IAD can cause sadness, depression, loss of interest in daily activities, as well as distractions from

physical play and social interaction, resulting in increased emotional and mental stress. Two studies by Carte (2018) and Lebni et al. (2020) aimed to understand the internet addiction issues and its potential negative effects, both found positive results on association between internet addiction and mental health. Bisht et al. (2021) also conducted a study on the relationship between internet addiction and well-being of teenagers and young adults, pinpointing that internet addiction among these individuals leads to decreased well-being. Likewise, in the study based on the Czech Republic and Slovak Republic, Gavurova et al. (2022) concluded that internet addiction was linked to higher levels of stress, anxiety and depression symptoms.

Sharma et al. (2018) reported that factors like gender, employment of father, mother's level of education, personal gadgets, use of smartphones and internet exposure increase internet addiction levels, leading to depression, anxiety and stress. Mishra and Others (2024) revealed that internet addiction rates vary across cultures and geographical areas and are frequently linked with variables like parental supervision, socioeconomic level and psychological traits. Further, they highlighted the detrimental effects of internet addiction on social interactions, physical health, academic performance, mental health conditions, reduced physical activity and disturbed sleep patterns. However, the study of Mishra et al. (2015) reported no correlation between internet addiction and psychopathologies of university students. Lodha (2018) narrated similar results, high internet addiction scores did not necessarily correlate with higher scores on despair, stress and anxiety. However, they observed that females with high addiction scores had higher depression, anxiety and stress compared to males.

The study of Anand et al. (2018) summarised that a significant percentage of engineering students suffer from internet addiction, which might harm their academic progress and professional aspirations. They suggested in their study that early identification of internet addiction is crucial for managing psychological distress. Mishra et al.'s (2015) study found much more addiction of internet among the students of a university. Priya and Others (2018) found that internet addiction is currently low, it may increase in the future due to rapid internet and computer usage, as addiction is linked to factors like gender, age and smartphones. They noticed high internet usage among medical students for social networking, possibly due to high-speed internet on mobile phones, suggesting that universities should educate students on using the internet meaningfully and appropriately. Joseph et al.'s (2021) research indicates that approximately between 20 and 40 percent of college students in India are susceptible to internet addiction, suggesting the need for reorientation of mental health services to address internet addiction. Another study by Sharma and Mohan (2022) pinpointed that most students have mild to moderate internet addiction, which is a significant cause of depression among people.

From a gender perspective, Das and Roy (2023) found a significant difference in internet addiction among male and female students, with girls showing less digital technology use. However, no significant correlation was found between internet addiction and mental health. The study by Rasheed and Others (2024) indicated a high prevalence of internet addiction among undergraduates and postgraduates, particularly in cities and among men, highlighting the need for targeted interventions and preventative

measures in educational institutions to address this issue. A cross-sectional study conducted by Pandey (2024) highlighted the majority of severely addicted individuals are aged 26-35, with higher rates among males. However, Azeem et al. (2023) found no significant difference in internet addiction among undergraduate students based on gender and age. Thus, the analysis of works of literature reveals a substantial increase in internet usage among young adults, primarily driven by academic progress and career goals. Therefore, the present study aims to comprehend internet addiction among undergraduate technical and non-technical students, pursuing academic objectives.

Need and Significance of the Study

The rapid advancement of modern technology and internet accessibility has revolutionised education, social interactions and personal development. It is equally true for students, particularly undergraduate students. With an increasing number of students engaging with digital platforms, concerns regarding internet addiction have emerged. Internet addiction poses a serious threat to students' academic performance, mental well-being and social relationships, making it a critical issue for educational institutions and policymakers. The findings of various studies indicate that excessive internet use is associated with health issues, such as stress, anxiety, depression, disturbed sleep patterns and reduced physical activity (Kathait and Singh, 2014; Krishnamurthy and Chetlapalli, 2016; Masih and Rajkumar, 2019; Bisht et al., 2021; Gavurova et al., 2022). Additionally, the research of Akin and Iskender (2011) demonstrated that internet addiction levels may vary based on academic streams, with technical

students often exhibiting higher dependency.

Nevertheless, the National Education Policy (NEP) 2020 emphasises holistic development of learners, including socio-emotional well-being, self-regulation, and responsible use of technology. Excessive and uncontrolled internet use may adversely affect these dimensions, making internet addiction a critical concern in the context of NEP 2020.

Internet addiction rates vary across cultures and geographical areas, often influenced by factors like parental monitoring, psychological characteristics and socio-economic status (Mishra et al., 2024). Many researches indicate significant differences in internet addiction levels between male and female pupils, with male students being more addicted (Das and Roy, 2023; Rasheed et al., 2024; Pandey, 2024). However, Azeem et al. (2023) could not find any apparent variations in internet addiction between undergraduate students according to age or gender. The current study will provide comprehensive understanding about internet addiction of undergraduate students studying technical and non-technical fields. In addition, the authors try to examine the differences in internet addiction between academic streams and gender, and identify factors contributing to excessive use. It will pave the way for balanced and mindful internet usage to ensure academic success and overall well-being.

Objectives

The present study's objectives are as follows:

1. To assess the internet addiction level of undergraduate students.

2. To compare the internet addiction of undergraduate students in relation to their academic streams (i.e. technical and non-technical).

3. To compare the internet addiction of undergraduate students in relation to their gender across the academic streams.

4. To ascertain the combined effect of gender, age and hours spent online on internet addiction.

Hypotheses

The following hypotheses were formulated:

1. **Ho$_1$:** There is no significant difference in internet addiction between undergraduate technical and non-technical students.

2. **Ho$_2$:** There is no significant difference in internet addiction between undergraduate male and female technical students.

3. **Ho$_3$:** There is no significant difference in internet addiction between undergraduate male and female non-technical students.

4. **Ho$_4$:** There is no significant difference in internet addiction between undergraduate male and female students.

Methodology of the Study

This study explored the internet addiction of undergraduate technical and non-technical higher education students. The data was collected from respondents using a descriptive research design based on the online survey. The Google-form can be effectively used for data collection (Jha and Sharma, 2023). The scope of the present study was restricted to one central university (CU), Uttar Pradesh.

Sample: The authors utilised data from 207 undergraduate students from CU. Through a purposive sample approach, authors selected undergraduate students pursuing Bachelor of Technology (B. Tech) and Bachelor of Arts (BA) courses. Purposive sampling was adopted as the study focused on students who met specific inclusion criteria, such as regular internet usage and enrolment in selected academic streams, making random sampling less appropriate. The sample consists of 207 undergraduate students, 109 of whom were enrolled in B. Tech courses and 98 in BA (Hons) programs at CU. Among these undergraduate technical students, 94 responses were males and 15 females. Out of 98 undergraduate non-technical students, 45 males and 53 females responded to this survey. Moreover, the lower representation of female students, particularly in technology-related programmes, reflects existing enrolment patterns in such disciplines in the Indian higher education context (Singh and Singh, 2025) rather than a sampling bias.

Tool Used: The authors used a self-developed Internet Addiction Scale (IAS) to gauge undergraduates' degree of internet addiction. The scale has 20 statements pertaining to internet addiction. The respondents have to rate each statement on a five-point rating scale. Each item has five possible response alternatives, i.e. 1 for never, 2 for rarely, 3 for frequently, 4 for often and 5 for always. The range of the score is 0-100 with mean score 50 and standard deviation 13.7.

To facilitate meaningful interpretation of the scores, the total scores were classified into three levels: low (0–36),

average (36–63), and high (above 63) internet addiction. These cut-off points were determined based on the normal probability distribution of the obtained data, ensuring that the classification reflects the actual score distribution of the sample rather than arbitrary thresholds. Such data-driven categorisation is considered appropriate in exploratory and scale-development studies.

The scale is technically sound. The content validity of the scale was confirmed by five experts. The reliability of the scale was established through an internal consistency test with the help of Cronbach's alpha, which came to 0.854.

Statistical Techniques: To achieve the study's objectives, the gathered data was examined using both descriptive and inferential statistics. Descriptive statistics such as frequency and percentage were carried out to determine the internet addiction level of undergraduates. Inferential statistics like t-test to examine the variations between groups, the Cronbach's alpha test to assess the scale's reliability, and regression model to determine the relationship between predictors and internet addiction. However, the assumption of normal distribution was checked using graphs (i.e. histogram and normal probability plot). The collected data was analysed using the software program SPSS 25.

Analysis and Interpretation

Considering the study's objectives, the data's statistical analysis, interpretation and results are given as follows:

Distribution Pattern of Internet Addiction Scores

For testing the distribution pattern of internet addiction scores in the chosen sample of undergraduate technical and non-technical students, the authors draw histogram and normal probability plot of the scores obtained from self-made Internet Addiction Scale (IAS). The results are presented below in Figure 1 and 2.
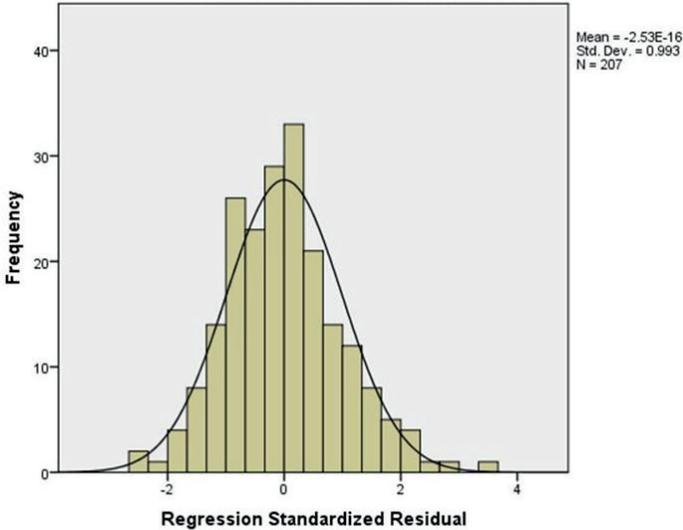

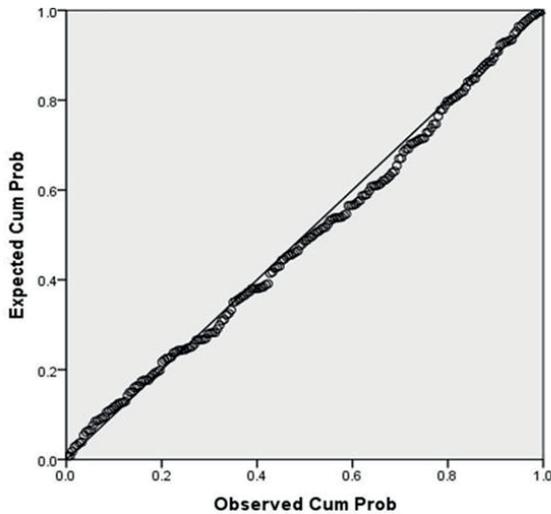*Fig. 1: Histogram of Internet Addiction Scores*

Fig. 2: Normal Probability Plot of Internet Addiction Scores

According to the figures, the bell-shaped histogram supports the notion that the data are normally distributed. Further, the normal probability plot indicated that the data were approximately normally distributed, as the plotted points closely followed the diagonal reference line. After scrutinising the nature of distribution of internet addiction scores, the authors computed the t-test to analyse the differential hypotheses.

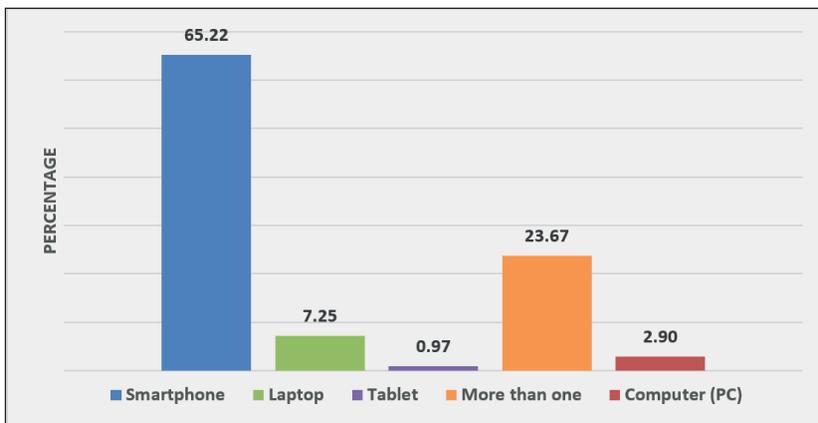## Usage of Digital Tools by Undergraduate Students

Fig. 3: Devices Used by Undergraduate Students (N=207)

Figure 3 provides a detailed breakdown of the devices utilised by respondents for internet usage, 23.67 percent of respondents exclusively used multiple devices, 7.28 percent relying on Laptops, 2.90 percent on Computers (PCs) as their primary devices, while very few (0.97%) using Tablets for online activities. Remarkably, a significant number of undergraduate students, comprising 65.22 percent, are currently using Smartphones. This highlights a widespread trend where the majority of undergraduate students are using Smartphones for internet-related activities.
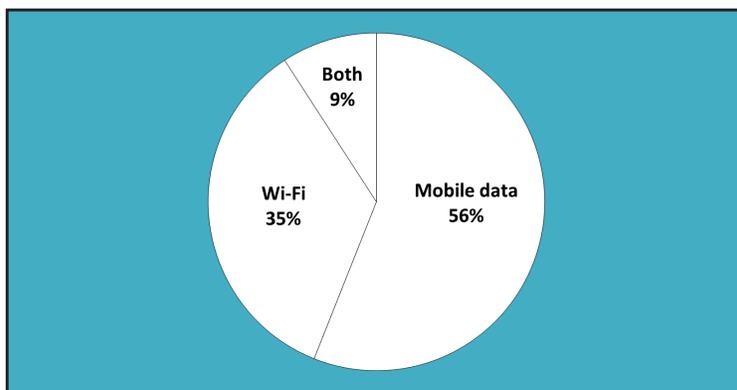
Fig. 4: Internet Connection Used by Undergraduate Students (N=207)

Figure 4 reveals that 56 percent of 207 respondents used mobile data, 35 percent used Wi-Fi solely, and 9 percent utilized both types of internet connections for internet-related activities. This suggests that the vast majority of undergraduate students have extensive Internet access, as evidenced by their widespread use of mobile data and Wi-Fi. The conclusion indicates that most undergraduate students, both at home and in their institution, have adequate internet access.

Internet Addiction Level Among Undergraduate Students

After scoring, the score of all the 20 items were added to obtain the total score of an individual on scale. Further, it was classified into three levels, i.e. low (0-36), average (36-63) and high (63+), based on the responses' scores. The classification results of undergraduate technical and non-technical student scores are presented as follows:

Table - 1: Internet Addiction Level of Undergraduate Students (N=207)

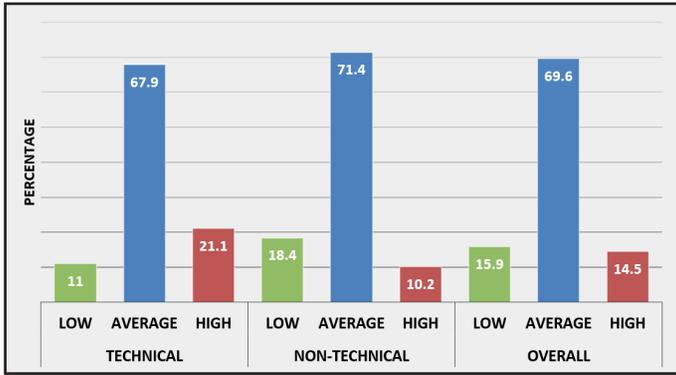| Category	Level	Frequency	Percentage (%)
Technical Students	Low	12	11.00
	Average	74	67.90
	High	23	21.10
Non-Technical Students	Low	18	18.40
	Average	70	71.40
	High	10	10.20
Overall	Low	33	15.90
	Average	144	69.60
	High	33	14.50

Fig. 5: Pictorial Representation of Internet Addiction Level of Undergraduate Students (N=207)

Referring the Table1 and Figure 5, based on the data, it can be inferred that 67.90 percent of undergraduate technical students have average level of internet addiction, with 11 percent stated as low and 21.1 percent high. Further, data (presented in table-2) revealed that 71.40 percent undergraduate non-technical students have average level of internet addiction, 18.40 percent reported low and 10.20 percent high. According to the data, overall the majority of undergraduate students (69.60%) were found average level of internet addiction, while 15.90 percent had low and 14.50 percent high. Here, it can be inferred that majority of undergraduate technical and non-technical students exhibits an average level of internet addiction. This result aligns with previous research by Joseph et al. (2021) and Sharma and Mohan (2022), indicating that most students exhibit mild to moderate internet addiction.

Stream-wise Comparison of Internet Addiction

Table - 2: Internet Addiction of Undergraduate Technical and Non-Technical Students

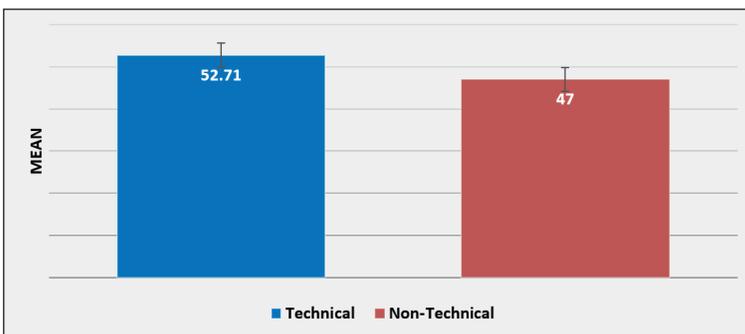| Category	N	Mean	SD	SEM	t value	p value	df	Result
Technical	109	52.71	14.56	1.39	-3.03	.003	205	Ho$_1$: Rejected
Non-technical		47.00	12.24	1.23				

Fig. 6: Pictorial Representation of Mean Scores of Undergraduate Technical and Non-Technical Students on Internet Addiction (N=207)

As per Table 2, it can be seen that mean scores of undergraduate technical and non-technical students for internet addiction were 52.71 and 47 respectively (Figure 6). The t-value was -3.03 with p-value 0.003, which was significant at 0.01 level. Thus, the hypothesis (Ho$_1$), "there is no significant difference in internet addiction between undergraduate technical and non-technical students", is rejected. It implies that undergraduate students of technical and non-technical academic streams differ significantly in internet addiction. It can be inferred from the mean scores that technical undergraduate students have a higher level of internet addiction than that of non-technical undergraduate students. This finding is supported by findings of Anand and Others (2018), who found that a significant number of engineering students suffer from internet addiction. In the same line, Akin and Iskender (2011) reported that academic streams can influence the degree of internet addiction, with technical students frequently exhibiting more dependence.

Gender-wise Comparison of Internet Addiction

Table - 3: Internet Addiction of Undergraduate Male and Female Technical Students

Category	N	Mean	SD	SEM	t value	p value	df	Result
Male	94	53.64	14.89	1.54	1.68	.095	107	Ho2: Accepted
Female	15	46.87	10.93	2.82				

Table 3 shows no discernible distinction in internet addiction scores of male and female undergraduate technical students, as indicated by t-value of 1.68 and p-value of 0.095. The result is confirmed by Azeem and Others (2023) findings, which showed no apparent gender disparities in internet addiction among undergraduate students. Thus, the hypothesis (Ho2), "there is no significant difference in internet addiction between undergraduate male and female technical students", is accepted.

Table - 4: Internet Addiction of Undergraduate Male and Female Non-Technical Students

Category	N	Mean	SD	SEM	t value	p value	df	Result
Male	45	50.96	13.88	2.07	3.07	.003	96	Ho$_3$: Rejected
Female	53	43.64	9.56	1.31				

As per Table 4, it can be seen that mean scores of undergraduate non-technical students for internet addiction on the basis of gender were 50.96 and 43.64 for male and female respectively (figure-7). The t-value was 3.07 with p-value 0.00, which was significant at 0.05 level. Thus, the hypothesis (Ho3), "there is no significant difference in internet addiction between undergraduate male and female non-technical students", is rejected. The finding suggested a significant disparity in internet addiction levels between undergraduate male and female non-technical students. The mean score indicates that undergraduate male non-technical students exhibit a higher level of internet addiction than their female counterparts.

Table - 5: Internet Addiction of Undergraduate Male and Female Students

Category	N	Mean	SD	SEM	t value	p value	df	Result
Male	139	52.77	14.57	1.23	4.29	.000	205	Ho$_4$: Rejected
Female	68	44.35	9.89	1.20				

From Table 5, it is found that mean scores of undergraduate students for internet addiction on the basis of gender were 52.77 and 44.35 for male and female respectively (figure-7). Furthermore, t-value was 4.29 with p-value 0.000 which was significant at 0.01 level. Thus, the hypothesis (Ho4), "there is no significant difference in internet addiction between overall undergraduate male and female students", is rejected. This result suggests that overall prevalence of internet addiction varies greatly across male and female undergraduate students. The mean score reflects that undergraduate males are more addicted to the internet than females. This finding coincides with the finding of Das and Roy (2023), Rasheed et al. (2024) and Pandey (2024), whereas contradicts with the findings of Azeem et al. (2023).
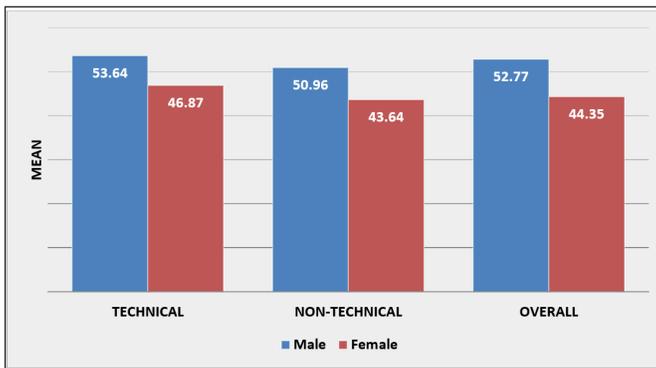

Fig. 7: Pictorial Representation of Mean Scores of Undergraduate Male and Female Students on Internet Addiction (N=207)

Relationship between Predictors and Dependent Variable

In the present study, the authors have taken key variables namely, gender, age and hours spent online as predictors that may be responsible for internet addiction (dependent variable).

Table - 6: Descriptive Statistics

Statistics	Gender		Age	Hours Spend on Internet
	Male	**Female**	**Range (years)**	**Range (hours)**
Frequency/ Range	139	68	19-26	2-8
Mean	.33		22.57	5.93
Std. Deviation	.471		2.765	2.751

These predictors are either in nominal or ordinal scale whereas the dependent variable 'internet addiction' is on Likert scale with five categories, i.e. never, rarely, frequently, often and always. The results of regression analysis are presented in the following tables:

Table - 7: Model-Fit Summary

Model	R	R2	Adjusted R2	Std. Error of Estimate	Durbin-Watson
1	0.399	0.159	0.147	12.730	0.371

From Table 7, the value of R Square is 0.159 which shows that the independent variable all together explains 15.9 percent of the dependent variable (Internet Addiction). Further, adjusted for the number of predictors; it shows a small reduction in explanatory power. The study acknowledges that Durbin-Watson (0.371), indicating a strong positive autocorrelation in residuals (values should ideally be around 2).

Table - 8: ANOVA

Model		Sum of Squares	df	Mean Square	F	Remark
1	Regression	6225.743	3	2075.248	12.806	0.371
	Residual	32897.252	203	162.055		
	Total	39122.995	206			

a. Dependent variable: Internet Addiction

b. Predictors (Constants): Gender, Age, Hours Spent Online

According to Table 8, the F-value of ANOVA test is 12.806, with a probability of significance (df=3, 203) of 0.371, which is more than 0.05, proving that there is no statistical significance in data.

Table 9: Results of Regression

Variable	Beta (ß)	p value	Result
Gender	-6.869	.000	Significant
Age	-0.716	.028	Significant
Hours Spent Online	1.221	.000	Significant

Table 9 shows the results of regression analysis that establishes connection between predictors and internet addiction. It can be observed from the results that predictors of gender (ß=-6.869, p<.01), age (ß=-0.716, p<.05), hours spent online (ß=1.221, p<.01) are significant with p value less than 0.05. Hence, it can be concluded that these predictors (gender, age and hours spent online) are responsible factors influencing internet addiction. The findings are in line with Sharma et al. (2018) and Priya et al. (2018).

Limitation and Further Research

This study is limited to one central university, Uttar Pradesh. The study suggests further research on long-term psychological and academic consequences of internet addiction

across diverse student populations, considering socio-economic and cultural influences. The study also acknowledges that further research is needed to identify additional unexplored factors that may significantly contribute to internet addiction. This study's findings will guide future research on internet addiction in various student demographics, aiding in the development of effective digital literacy initiatives and intervention techniques.

Conclusions

It is well recognised that internet use is important. It has revolutionised the way students access academic resources, engage in social interactions and pursue self-directed learning. However, excessive and uncontrolled use can lead to internet addiction, which adversely affects academic performance, social relationships and mental well-being. This study examined internet usage patterns among undergraduate students and found that most technical and non-technical students own digital devices and have access to both mobile data and Wi-Fi, facilitating constant online engagement.

The findings reveal that the majority of students exhibit a moderate level of internet addiction, with technical students being more affected than their non-technical counterparts. This may be attributed to the nature of technical education, which often involves prolonged digital engagement for academic and professional purposes. Additionally, the study highlights that males are generally more internet-dependent than females, suggesting potential behavioural and psychological differences in technology usage. Furthermore, the study highlights the significant influence of factors such as gender, age and time spent online in determining the degree of internet addiction. Younger students and those who spend excessive hours online are more likely to acquire compulsive internet usage patterns.

Recommendation

While the internet plays a crucial role in learning, skill development, and career advancement among youth, the findings of the present study underline the need for responsible and balanced usage to prevent dependency. A multi-stakeholder approach is necessary to address the issue of internet addiction, including educators, parents, mental health professionals and students themselves. The policymakers and educational institutions should collaborate to encourage responsible internet use for students' academic success and overall well-being. Maintaining a good balance between online and offline activities requires proactive interventions, such as mental health assistance, digital literacy programs and structured time management training.

References

Akin, A., & Iskender, M. (2011). Internet Addiction and Depression, Anxiety, and Stress. International *Online Journal of Educational Science,* 3(1), 138-148. Available at: https://www.researchgate.net/publication/264550590

Anand, N., Jain, P. A., Prabhu, S., Thomas, C., Bhat, A., Prathyusha, P. V., Bhat, S. U., Young, K., & Cherian, A. V. (2018). Internet Use Patterns, Internet Addiction, and Psychological Distress Among Engineering University Students: A Study from India. *Indian Journal of Psychological Medicine*, 40(5), 459-67.

Azeem, A., Sarwar, G., & Sharma, R. (2023). A Study of Internet Addiction among the Students of Aligarh Muslim University, Murshidabad Centre. *International Journal of Advanced Multidisciplinary Scientific Research,* 6(4). Available at: https://doi.org/10.31426/ijamsr.2023.6.4.6211

Bisht, A., Pande, D., & Sarkar, S. K. (2021). Relationship Between Internet Addiction & Well-Being Among Teenagers and Young Adults. I*lkogretim Online-Elementary Education Online*, 20(1), 6965-70. Available at: https://bibliomed.org/?mno=112795

Carte, Lara. (2018). The Relationship Between Internet Addiction and Mental Health Conditions. Locus: *The Seton Hall Journal of Undergraduate Research*, 1(4). Available at: https://scholarship.shu.edu/locus/vol1/iss1/4

Das, B., & Roy, S. (2023). Influence of Internet Addiction on Depression, Anxiety, Stress of College Students: A Descriptive Survey Study. *National Journal of Education*, 20(2), 89-100.

Gavurova, B., Khouri, S., Ivankova, V., Rigelsky, M., & Mudarri, T. (2022). Internet Addiction, Symptoms of Anxiety, Depressive Symptoms, Stress Among Higher Education Students During the COVID-19 Pandemic. *Frontiers in Public Health*, 10, 1-21. Available at: https://doi.org/10.3389/fpubh.2022.893845

Jha S.K., & Sharma, S. (2023). The transformative role of tools in educational research: Unlocking insights and advancing pedagogy (pp. 66-70). In: Research as a mode of exploration: Some examples. New Delhi: SCERT.

Joseph, J., Varghese, A., VR, V., Dhandapani, M., Grover, S., Sharma, S., Khakha, D., Mann, S., & Varkey, B. P. (2021). Prevalence of Internet Addiction among College Students in the Indian Setting: A Systematic Review and Meta-Analysis. *General Psychiatry.* Available at: https://www.researchgate.net/publication/354051789

Kathait, G. S., & Singh, A. P. (2014). The Effect of Internet Addiction on Depression, Anxiety, Social Isolation, and Sleep Pattern among Youth. *Indian Journal of Applied Research*, 4(9), 507-11.

Krishnamurthy, S., & Chetlapalli, S. K. (2016). Internet Addiction: Prevalence and Risk Factors: A Cross-Sectional Study Among College Students in Bengaluru, the Silicon Valley of *India. Indian Journal of Public Health*, 59(2), 115-21.

Kuss, D. J., & Griffith, M. D. (2012). Online Gaming Addiction in Children and Adolescents: A Review of Empirical Research. *Journal of Behavioural Addictions*, 1(1), 3-22.

Lebni, J. Y., Toghroli, R., Abbas, J., Nejhaddadgar, N., Salashoor, M. R., Mansourian, M., Gilan, H. D., Kianipour, N., Chaboksavar, F. Azizi, S. A., & Ziapour, A. (2020). A Study of Internet Addiction and its Effects on Mental Health: A Study based on Iranian University Students. *Journal of Education and Health Promotion*, 09. Available at: https://pubmed.ncbi.nlm.nih.gov/33062738/

Lodha, Pragya. (2018). Internet Addiction, Depression, Anxiety and Stress Among Indian Youth. *Indian Journal of Mental Health*, 5(4), 427-42. Available at: https://www.researchgate.net/publication/332418477

Masih, J., & Rajkumar, R. (2019). Internet Addiction Disorder and Mental Health in Adolescents. Available at: https://www.researchgate.net/publication/333162118

Mishra, J., Behera, M. R., Mitra, R., Samanta, P., Mahapatra, P. K., & Kar, S. (2024). Prevalence and Impact of Internet Addiction Disorder Among Adolescents and Young Adults. *The Open Public Health Journal,* 17, 1-10. Available at: https://www.researchgate.net/publication/385312042

Mishra, S., Rout, R. P., & Jayakrishnan, K. (2015). A Correlative Study to Assess the Internet Addiction and Psychopathologies among the Students of SOA University Bhubaneswar. I*OSR Journal of Nursing and Health Science*, 4(1), 66-69.

Pandey, Shailendra. (2024). A Cross-Sectional Study in Indian Adult Population to Assess the Internet Addiction and Its Effect on the Quality of Sleep. Texila *International Journal of Academic Research*. Available at: https://doi.org/10.21522/tijar.2014.11.02.art012

Priya, N., Khan, S., & Lal, S. (2018). An Overview of Internet Use among Professionals of Moradabad: A Critical Appraisal. I*nternational Journal of Community Medicine and Public Health,* 5(1), 198-202.

Rasheed, SM. A., Mishra, L. K., & Tiwari, G. K. (2024). Internet Addiction Among Higher Secondary and University Students in India: A Post-COVID Assessment. *Caspian Journal of Health Research*, 9(3), 135-42. Available at: https://doi.org/10.32598/CJHR.9.3.486.2

Sharma, B., Ashok, L., Chandrasekaram, V., & Monteiro, A. (2018). Internet Addiction and Its Correlation Among Undergraduate College Students in Udupi Taluk, Karnataka. *Journal of Datta Meghe Institute of Medical Science University,* 13(2), 95-99.

Sharma, P. W., & Mohan, J. (2022). Internet Addiction and Depression among Undergraduate Students of DU Colleges during COVID. *Journal of Educational Planning and Administration*, 36(3), 239-55.

Singh, J. &, Singh, O. (2025). Gender disparities in STEM education in India: A comparative study of socioeconomic factors. International Education and Research Journal (IERJ), 11(07). Available at: https://doi.org/10.5281/zenodo.16735708.