

Impact of Internet Addiction on Loneliness and Self-Esteem among Degree Students at Selected Degree Colleges in Bagalkot

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DOI: <https://doi.org/10.36347/sjams.2026.v14i04.006>

| Received: 27.02.2026 | Accepted: 05.04.2026 | Published: 08.04.2026

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Abstract

Original Research Article

Background: The rapid proliferation of internet usage among college students has emerged as a significant concern in contemporary academic and psychological research. Internet addiction is characterized by compulsive, excessive internet use that interferes with daily functioning, academic performance, and interpersonal relationships. Degree college students are particularly vulnerable given their increased exposure to digital devices, social pressures, and academic demands. Loneliness and low self-esteem have been identified as key psychological correlates of internet addiction, creating a complex bidirectional relationship that adversely affects mental well-being. **Aim:** To assess the impact of internet addiction on loneliness and self-esteem among degree students at selected degree colleges in Bagalkot. **Methods:** A quantitative, non-experimental descriptive co-relational research design was employed. Data were collected from 100 degree students aged 18–24 years at Government First Grade Degree College, Navanagar, Bagalkot, using proportionate stratified random sampling. Three validated tools were used: Young's Internet Addiction Test (IAT), UCLA Loneliness Scale, and Rosenberg Self-Esteem Scale. Karl Pearson's correlation coefficient was applied to determine the relationship between variables, and Chi-square test was used to identify associations between sociodemographic variables and study outcomes. **Results:** The majority of students (73%) were male and most (23%) were aged 21–22 years. Regarding internet addiction, 49% had mild addiction, 44% were normal, and 7% had moderate addiction. For loneliness, 67% had mild loneliness and 24% moderate loneliness. Regarding self-esteem, 95% had normal self-esteem, 4% had low self-esteem, and 1% had high self-esteem. Karl Pearson's correlation revealed a negative, statistically non-significant correlation ($r = 0$) between internet addiction and both loneliness and self-esteem. Chi-square analysis revealed no significant association between sociodemographic variables and internet addiction, loneliness, or self-esteem ($p > 0.05$). **Conclusion:** Most degree students had mild internet addiction and mild loneliness, while the majority maintained normal self-esteem. No statistically significant relationship was found between internet addiction and either loneliness or self-esteem in this population. The type of screen used was the only variable significantly associated with internet addiction. These findings underscore the importance of targeted counseling interventions, digital literacy programs, and awareness initiatives in degree college settings.

Keywords: Internet Addiction, Loneliness, Self-Esteem, Degree Students, Bagalkot, UCLA Scale, Rosenberg Scale, IAT.

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INTRODUCTION

The advancement of digital technology has significantly transformed the lifestyle, communication, and learning patterns of individuals across the world. Among these technological developments, the internet

has emerged as one of the most influential tools, particularly among young adults and college students. In the present era, the internet is widely used for academic activities, communication, social networking, entertainment, and information seeking. However,

excessive and uncontrolled use of the internet has resulted in a behavioral condition commonly referred to as internet addiction. Internet addiction is characterized by an inability to control internet usage, leading to negative consequences in personal, academic, and social domains [1, 2].

Globally, the prevalence of internet addiction among college students has been increasing at an alarming rate, with studies reporting prevalence rates ranging from 10% to 40% depending on the population and assessment tools used [8]. This growing trend is particularly evident in developing countries like India, where affordable smartphones and easy internet access have significantly increased usage among students.

College students represent one of the most vulnerable populations for internet addiction due to their increased exposure to digital devices, academic demands, and social pressures. In degree colleges, students frequently use the internet not only for educational purposes but also for social networking, gaming, and entertainment. While moderate use of the internet enhances learning and connectivity, excessive usage can lead to psychological disturbances such as loneliness, reduced self-esteem, anxiety, depression, and stress [6-9].

Loneliness is a subjective emotional state characterized by a perceived lack of meaningful social relationships. It reflects a discrepancy between desired and actual social interactions. Excessive internet use reduces face-to-face communication and increases dependence on virtual interactions, thereby contributing to feelings of loneliness [3-10]. Simultaneously, loneliness can act as a precipitating factor for internet addiction, as individuals may use online platforms as a coping mechanism to escape negative emotions, thus creating a bidirectional relationship between loneliness and internet addiction [5-7].

Self-esteem refers to an individual's perception of self-worth and plays a vital role in psychological well-being. Individuals with high self-esteem tend to exhibit confidence and emotional stability, whereas those with low self-esteem are more susceptible to insecurity, anxiety, and social withdrawal. Low self-esteem has been identified as a significant risk factor for internet addiction, as individuals may seek validation and acceptance through online platforms [4-6].

Empirical studies have consistently demonstrated relationships between internet addiction, loneliness, and self-esteem. A cross-sectional study among university students in Turkey revealed that loneliness and self-esteem are significant predictors of internet addiction, together explaining a considerable proportion of its total variance [5]. Another study found a significant negative relationship between internet

addiction and self-esteem, indicating that higher levels of internet addiction are associated with lower self-esteem and increased psychological distress [6]. Research among students in Bangladesh similarly found that loneliness is positively correlated with internet addiction, whereas self-esteem is negatively correlated, highlighting the interconnected nature of these variables [7].

The impact of internet addiction extends beyond psychological factors and adversely affects academic performance, social relationships, and overall well-being. Excessive internet use has been associated with poor time management, decreased concentration, reduced academic achievement, and sleep disturbances [9]. Students who spend prolonged hours online often neglect academic responsibilities and experience difficulties in maintaining interpersonal relationships, leading to increased isolation and reduced self-confidence.

In the Indian context, particularly in the Bagalkot region of Karnataka, the problem of internet addiction is becoming increasingly significant. The widespread availability of affordable smartphones and internet services has contributed to increased digital usage among students. However, region-specific research focusing on the combined impact of internet addiction on loneliness and self-esteem among this population remains limited. From a nursing perspective, internet addiction is an emerging mental health concern that requires early identification and targeted intervention. Nurses and healthcare professionals play a crucial role in promoting mental health, identifying behavioral problems, and implementing appropriate counseling and educational strategies.

Therefore, the present study was undertaken to assess the impact of internet addiction on loneliness and self-esteem among students of selected degree colleges in Bagalkot, to explore the relationships between these variables, and to identify sociodemographic factors contributing to internet addiction.

Objectives of the Study

The present study was conducted with the following objectives:

- To assess the level of internet addiction among degree students.
- To assess the level of loneliness experienced by degree students.
- To assess the level of self-esteem among degree students.
- To assess the impact of internet addiction on loneliness and self-esteem among degree students.
- To find out association between impact of internet addiction on loneliness with their selected socio demographic variables.

- To find out association between self-esteem with their selected socio demographic variables.

REVIEW OF LITERATURE

A co-relational study conducted in Punjab, Pakistan, selected 250 students (125 males, 125 females) through convenience sampling using the Revised Internet Addiction Scale, Rosenberg Self-Esteem Scale, and UCLA Loneliness Scale. Results revealed a significant correlation between internet addiction, self-esteem, and loneliness, with internet addiction identified as a strong predictor of poor self-esteem and loneliness among college students [1].

A co-relational study conducted across four colleges in Coimbatore, Tamil Nadu, involving 200 students selected through stratified random sampling, utilized the Internet Addiction Questionnaire and UCLA Loneliness Scale. Results demonstrated a significant positive correlation between internet addiction and loneliness, concluding that greater internet use contributes to loneliness among college students. Counseling programs were recommended for affected students [2].

A cross-sectional study conducted in Turkey involving 384 university students (114 males, 270 females) aged 18–24 years used four standardized instruments: Internet Addiction Scale, UCLA Loneliness Scale, Self-Esteem Scale, and Life Satisfaction Scale. Findings revealed that loneliness, self-esteem, and life satisfaction explained approximately 38% of the total variance in internet addiction, with loneliness emerging as the most significant predictor [5].

A descriptive study conducted in Ghaziabad, Uttar Pradesh, selected 300 students (150 males, 150 females) using the Compulsive Internet Use Scale and UCLA Loneliness Scale. A significant link was found between loneliness and excessive internet use, with recommendations for behavioral monitoring and the development of additional interests to prevent internet dependency [6].

A correlational study conducted at Ain Shams University, Egypt, assessed 110 nursing students aged 19–26 years using the Internet Addiction Scale and Self-Esteem Scale. A significant negative relationship was found between self-esteem and internet addiction, with a recommendation for training programs addressing the psychological harms of internet addiction [7].

A cross-sectional study from Mumbai analyzed 220 adolescents (aged 16–19 years) from three public high schools using the UCLA Loneliness Scale, Rosenberg Self-Esteem Scale, and Young's Internet Addiction Test. The study concluded that loneliness and low self-esteem are significant psychological risk factors

for internet addiction, emphasizing the need for school-based psychological and social interventions [9].

A cross-sectional study in Chandigarh selected 200 undergraduate female students aged 18–21 years using four scales including the Internet Addiction Scale, Perceived Stress Scale, UCLA Loneliness Scale, and Multidimensional Perceived Social Support Scale. A positive relationship was found between internet addiction, stress, and loneliness. The study concluded that insufficient family interaction triggers emotional loneliness, leading students to seek online relationships [10].

A cross-sectional study conducted in Trabzon, Turkey, among 292 students used the UCLA Loneliness Scale, Beck Depression Scale, Internet Addiction Scale, and Rosenberg Self-Esteem Scale. A positive and significant relationship was found between internet addiction and depression, loneliness, and self-esteem. Depression and loneliness were significant predictors of internet addiction, while self-esteem alone was not a significant predictor [11].

MATERIAL AND METHODS

STUDY DESIGN AND SETTING

A quantitative, non-experimental descriptive co-relational research design was employed for the present study. The study was conducted at Government First Grade Degree College, Navanagar, Bagalkot, Karnataka. The setting was selected based on the investigator's familiarity, availability of subjects, and feasibility of data collection.

Population and Sample

The target population comprised degree students aged 18–24 years enrolled at Government First Grade Degree College, Navanagar. The sample consisted of 100 students selected using proportionate stratified random sampling with a lottery method. First-year BBA, B.Sc., and Engineering students were included, with 10 students excluded from the final study following the pilot phase. The sample size was estimated using the formula: $n = Z^2 \times SD^2 / d^2$, based on findings from the pilot study.

Inclusion and Exclusion Criteria

Students included in the study were those able to read and write English, available at the time of data collection, and willing to participate. Students who were physically or mentally ill in a manner that would interfere with data collection, or who were unable to cooperate throughout the process, were excluded.

INSTRUMENTS

Data were collected using four structured tools:

- **Section A – Sociodemographic Proforma:** Collected information on age, gender, religion, year of study, type of family, monthly income, place of residence, parents' education and

occupation, daily internet usage, and type of other screen used.

- **Section B – Young's Internet Addiction Test (IAT):** A 20-item Likert-type scale (0 = Does not apply to 5 = Always) with total scores ranging from 0–100. Scores were categorized as: Normal (0–30), Mild (31–49), Moderate (50–79), and Severe (80–100).
- **Section C – UCLA Loneliness Scale:** A 20-item scale with 4-point Likert options (Never to Often), with scores ranging from 20–80. Levels: Not Lonely (20–34), Mild Loneliness (35–49), Moderate Loneliness (50–64), and Severe Loneliness (65–80).
- **Section D – Rosenberg Self-Esteem Scale:** A 10-item Likert scale (Strongly Agree to Strongly Disagree) with scores from 10–30. Categorized as: Normal Self-Esteem (15–25), Low Self-Esteem (< 15), and High Self-Esteem (> 25).

CONTENT VALIDITY AND RELIABILITY

Content validity was established through expert review by five faculty members from the Department of Pediatric Nursing at B.V.V.S Sajjalashree Institute of Nursing Sciences. Minor modifications were incorporated based on expert recommendations and pilot study findings. Reliability was established using the Karl Pearson Correlation Coefficient through the test-retest method, administered on 11-11-2025 and re-administered on 17-11-2025, yielding acceptable reliability coefficients for all three scales.

Pilot Study

A pilot study was conducted on 11-11-2025 at Government Degree College, Bagalkot, with 10 students selected through proportionate stratified random sampling. These subjects were subsequently excluded from the main study. The pilot study confirmed the feasibility, clarity, and reliability of the instruments.

Data Collection

Formal administrative approval was obtained from the institutional principal and the Institutional Ethics Committee. Data were collected over two days (11-11-2025 to 12-11-2025). Written informed consent was obtained from all participants. Anonymity and confidentiality were strictly maintained. Each participant took approximately 45 minutes to complete all three scales.

Plan of Data Analysis

Data were analyzed using descriptive statistics (frequency, percentage, mean, median, standard deviation) and inferential statistics. Karl Pearson's Correlation Coefficient was used to determine the relationship between internet addiction and loneliness, and between internet addiction and self-esteem. Chi-square test was applied to examine associations between sociodemographic variables and levels of internet addiction, loneliness, and self-esteem. The level of significance was set at $p < 0.05$.

RESULTS

The findings of the study are presented in the following parts:

PART I: Sociodemographic Profile of Degree Students

The distribution of sociodemographic characteristics revealed that the majority (23%) of students were in the age group of 21 and 22 years respectively, followed by 18% aged 19 years, 16% aged 20 years, 13% aged 23 years, 4% aged 18 years, and 3% aged 24 years. The majority (73%) of participants were male and 27% were female. Regarding religion, 99% were Hindu and 1% were Muslim. A majority (62%) were first-year students, while 38% were second-year students. Most students (67%) were from nuclear families and 33% from joint families.

Regarding family monthly income, 42% had an income of Rs. 20,001 and above, 25% had Rs. 15,001–20,000, 21% had income below Rs. 10,000, and 12% had Rs. 10,001–15,000. Most students (61%) resided in rural areas, 27% in urban areas, and 12% in semi-urban areas. Regarding parental education, 31% of fathers held graduation degrees and above, while 26% of mothers had PUC-level education or primary education. The most common paternal occupation was agriculture (31%), while 73% of mothers were homemakers.

Regarding internet usage patterns, 31% of students used the internet for more than 3 hours daily, 30% for 2–3 hours, 26% for less than 1 hour, and 13% for more than 1 hour. Television was the most common secondary screen used by 62% of students, followed by mobile (29%), computer (7%), and video games (2%).

Table 1: Sociodemographic Distribution of Degree Students (N = 100)

Sl. No.	Variable	Category	Frequency	%
1	Age (years)	21 & 22 years (majority)	23 each	23%
2	Gender	Male	73	73%
		Female	27	27%
3	Religion	Hindu	99	99%
4	Year of Study	1st Year	62	62%
5	Type of Family	Nuclear	67	67%

Sl. No.	Variable	Category	Frequency	%
6	Family Income	Rs. 20,001 & above	42	42%
7	Place of Residence	Rural	61	61%
8	Father's Education	Graduation & above	31	31%
9	Mother's Occupation	Homemaker	73	73%
10	Daily Internet Use	More than 3 hours	31	31%
11	Other Screen Used	Television	62	62%

Source: Primary data, 2025

PART II: Level of Internet Addiction (Iat Scale)

The frequency and percentage distribution of students according to their level of internet addiction is presented in Table 2. The majority (49%) of students had

mild internet addiction, 44% were in the normal range, 7% had moderate internet addiction, and none had severe internet addiction.

Table 2: Level of Internet Addiction among Degree Students (N = 100)

Sl. No.	Category	Score Range	Frequency	Percentage (%)
1	Normal	0-30	44	44%
2	Mild Addiction	31-49	49	49%
3	Moderate Addiction	50-79	7	7%
4	Severe Addiction	80-100	0	0%
	Total		100	100%

Source: Primary data, 2025

PART III: Level of Loneliness (Ucla Scale)

Table 3 presents the distribution of students according to their level of loneliness. The majority (67%)

of students had mild loneliness, 24% had moderate loneliness, 9% were not lonely, and none had severe loneliness.

Table 3: Level of Loneliness among Degree Students (N = 100)

Sl. No.	Category (UCLA Scale)	Score Range	Frequency	Percentage (%)
1	Not Lonely	20-34	9	9%
2	Mild Loneliness	35-49	67	67%
3	Moderate Loneliness	50-64	24	24%
4	Severe Loneliness	65-80	0	0%
	Total		100	100%

Source: Primary data, 2025

PART IV: Level of Self-Esteem (Rosenberg Scale)

The distribution of students according to self-esteem level is presented in Table 4. An overwhelming

majority (95%) of students had normal self-esteem, 4% had low self-esteem, and only 1% had high self-esteem.

Table 4: Level of Self-Esteem among Degree Students (N = 100)

Sl. No.	Category (Rosenberg Scale)	Score Range	Frequency	Percentage (%)
1	Normal Self-Esteem	15-25	95	95%
2	Low Self-Esteem	< 15	4	4%
3	High Self-Esteem	> 25	1	1%
	Total		100	100%

Source: Primary data, 2025

PART V: Association Between Sociodemographic Variables and Internet Addiction

Chi-square analysis was performed to examine the association between sociodemographic variables and

the level of internet addiction. The Chi-square table value for all variables with a 2x2 contingency table (df = 1) is 3.846 at p < 0.05 level of significance. Results are presented in Table 5.

Table 5: Association between Sociodemographic Variables and Internet Addiction (N = 100)

Sl. No.	Sociodemographic Variable	df	χ^2 Calculated	χ^2 Table Value	Association
1	Age	1	0.8534	3.846	NS
2	Gender	1	0.0019	3.846	NS
3	Religion	1	2.6584	3.846	NS

Sl. No.	Sociodemographic Variable	df	χ^2 Calculated	χ^2 Table Value	Association
4	Year of Studying	1	0.4129	3.846	NS
5	Father's Education	1	3.2158	3.846	NS
6	Mother's Education	1	3.5958	3.846	NS
7	Father's Occupation	1	0.4129	3.846	NS
8	Mother's Occupation	1	0.6505	3.846	NS
9	Type of Family	1	0.0019	3.846	NS
10	Family Income	1	1.1439	3.846	NS
11	Place of Residence	1	1.1439	3.846	NS
12	Daily Internet Usage	1	2.6584	3.846	NS
13	Other Screen Used	1	2.4512	3.846	NS

NS = Not Significant ($p > 0.05$); * Significant at $p < 0.05$. χ^2 table value = 3.846 ($df = 1$).

The Chi-square calculated values for all sociodemographic variables, were lesser than the Chi-square table value of 3.846. This indicates no significant association between most sociodemographic variables

and internet addiction. Hence, H^1 is rejected for all sociodemographic variables.

PART VI: Association Between Sociodemographic Variables and Loneliness

Table 6: Association between Sociodemographic Variables and Loneliness (N = 100)

Sl. No.	Sociodemographic Variable	df	χ^2 Calculated	χ^2 Table Value	Association
1	Age	1	0.0833	3.846	NS
2	Gender	1	0.2351	3.846	NS
3	Religion	1	0.7620	3.846	NS
4	Year of Studying	1	0.4772	3.846	NS
5	Father's Education	1	0.9325	3.846	NS
6	Mother's Education	1	0.0693	3.846	NS
7	Father's Occupation	1	1.8947	3.846	NS
8	Mother's Occupation	1	0.6722	3.846	NS
9	Type of Family	1	1.4571	3.846	NS
10	Family Income	1	0.2609	3.846	NS
11	Place of Residence	1	0.5405	3.846	NS
12	Daily Internet Usage	1	0.2953	3.846	NS
13	Other Screen Used	1	1.2253	3.846	NS

NS = Not Significant ($p > 0.05$). χ^2 table value = 3.846 ($df = 1$).

All Chi-square calculated values were lesser than the table value of 3.846, indicating no significant association between any sociodemographic variable and

the level of loneliness ($p > 0.05$). Hence, H^2 is rejected for all sociodemographic variables.

PART VII: Association Between Sociodemographic Variables and Self-Esteem

Table 7: Association between Sociodemographic Variables and Self-Esteem (N = 100)

Sl. No.	Sociodemographic Variable	df	χ^2 Calculated	χ^2 Table Value	Association
1	Age	1	0.8096	3.846	NS
2	Gender	1	3.2135	3.846	NS
3	Religion	1	1.1391	3.846	NS
4	Year of Studying	1	2.5388	3.846	NS
5	Father's Education	1	1.1495	3.846	NS
6	Mother's Education	1	0.1019	3.846	NS
7	Father's Occupation	1	0.0013	3.846	NS
8	Mother's Occupation	1	0.2825	3.846	NS
9	Type of Family	1	0.4039	3.846	NS
10	Family Income	1	0.0041	3.846	NS
11	Place of Residence	1	1.4738	3.846	NS
12	Daily Internet Usage	1	2.9813	3.846	NS
13	Other Screen Used	1	0.2214	3.846	NS

NS = Not Significant ($p > 0.05$). χ^2 table value = 3.846 ($df = 1$).

No significant association was found between any sociodemographic variable and the level of self-esteem ($p > 0.05$). Hence, H^3 is rejected for all sociodemographic variables.

PART VIII: Correlation Between Internet Addiction, Loneliness, and Self-Esteem

Karl Pearson's Correlation Coefficient was applied to assess the relationship between internet

addiction and (a) loneliness, and (b) self-esteem. The scores of the Internet Addiction Test were placed in the X column and the scores of the UCLA Loneliness Scale and Rosenberg Self-Esteem Scale were placed in the Y column. The r values obtained for both relationships were 0, indicating no statistically significant positive or negative correlation between internet addiction and either loneliness or self-esteem ($p > 0.05$).

Table 8: Correlation between Internet Addiction, Loneliness, and Self-Esteem (N = 100)

Sl. No.	Variables	r value	Interpretation
1	Internet Addiction & Loneliness	$r = 0$	No significant correlation
2	Internet Addiction & Self-Esteem	$r = 0$	No significant correlation

$p > 0.05$ for both correlations; hypotheses H_4 and H_5 are rejected.

Hence, H^4 (there will be a positive correlation between internet addiction and loneliness) and H^5 (there will be a positive correlation between internet addiction and self-esteem) are both rejected, as no statistically significant correlation was established.

DISCUSSION

The present study was designed to assess the impact of internet addiction on loneliness and self-esteem among degree students at selected degree colleges in Bagalkot. The findings are discussed below in relation to prior research.

The finding that 49% of students had mild internet addiction and 7% had moderate internet addiction is consistent with reports from similar studies. A cross-sectional study conducted among nursing and midwifery students in Zahedon found that 62% had mild internet addiction and 10.3% had moderate addiction [12], which closely aligns with the present findings. Another study conducted among health science students in Coimbatore similarly reported moderate internet addiction among college students [13].

Regarding loneliness, the finding that 67% of students had mild loneliness and 24% had moderate loneliness is consistent with prior studies. A descriptive study conducted in Ghaziabad, Uttar Pradesh, found a significant link between loneliness and excessive internet use, indicating that students who use the internet excessively are more likely to experience loneliness [6]. Similarly, a study from Coimbatore, Tamil Nadu, demonstrated a positive correlation between internet use and loneliness among college students [2].

The finding that 95% of students had normal self-esteem is noteworthy. This is consistent with the observation by Bozoglan *et al.*, [5], that not all individuals with internet addiction exhibit low self-esteem. Similarly, a study conducted in Delhi found that adult men and women experienced loneliness in equal

measure with no significant gender-based difference in self-esteem [14].

The absence of a statistically significant correlation ($r = 0$) between internet addiction and loneliness, and between internet addiction and self-esteem, may be attributed to the predominantly mild levels of addiction and the largely normal self-esteem observed in this sample. These findings partially align with the results of a correlational study conducted among nursing students in Iran, which also reported no significant relationship between internet addiction and loneliness [15].

The lack of significant associations between most sociodemographic variables and study outcomes in this study may reflect the relatively homogenous nature of the sample — predominantly young, male, rural-area students from a single institution. Future studies with larger, more diverse samples across multiple institutions would be necessary to draw broader conclusions.

CONCLUSION

The present study assessed the impact of internet addiction on loneliness and self-esteem among 100-degree students aged 18–24 years at Government First Grade Degree College, Navanagar, Bagalkot. The key findings are summarized as follows:

- The majority (49%) of students had mild internet addiction, 44% were in the normal range, and 7% had moderate internet addiction. No student had severe internet addiction.
- The majority (67%) of students had mild loneliness, 24% had moderate loneliness, and 9% were not lonely. No student had severe loneliness.
- The majority (95%) of students had normal self-esteem, 4% had low self-esteem, and 1% had high self-esteem.
- Karl Pearson's Correlation Coefficient revealed no statistically significant relationship between internet addiction and loneliness, or between

internet addiction and self-esteem ($r = 0$, $p > 0.05$).

These findings underscore the need for targeted counseling interventions, digital literacy programs, and awareness campaigns within degree college settings to prevent escalation of mild internet addiction to more severe levels, and to address the associated risks of loneliness and compromised self-esteem among young adults.

IMPLICATIONS

Nursing Practice:

Nurses should educate adolescents and young adults about the psychological consequences of internet addiction, including its effects on loneliness and self-esteem, as part of holistic mental health promotion.

Nursing Education:

The findings can be incorporated into psychiatric and mental health nursing curricula to sensitize future nurses to emerging behavioral health concerns such as internet addiction.

Nursing Administration:

Nurse administrators can utilize these findings to develop institutional policies and mental health support services for degree college students.

Nursing Research:

Further studies are recommended to examine internet addiction, loneliness, and self-esteem across diverse populations with larger sample sizes, longitudinal designs, and multi-institutional sampling.

LIMITATIONS

- The study was limited to 100-degree students from a single institution, limiting generalizability of findings.
- Long-term follow-up could not be conducted due to time constraints.
- The homogenous nature of the sample (predominantly male, rural, Hindu students) may limit the representativeness of findings.

RECOMMENDATIONS

- A similar study should be replicated with a larger and more diverse sample across multiple institutions and districts.
- Effectiveness of structured educational and counseling programs targeting internet addiction among degree students should be evaluated.
- Follow-up studies using longitudinal designs are recommended to capture the dynamic nature of internet addiction over time.
- Institutional counseling centers and digital wellness programs should be established at

degree colleges to proactively identify and support at-risk students.

Ethical Consideration:

Ethical clearance was obtained from the Institutional Ethical Clearance Committee of B.V.V.S Sajjalashree Institute of Nursing Sciences, Bagalkot. Informed written consent was obtained from all participants. Anonymity and confidentiality of all data were strictly maintained throughout the study.

Source of Funding: None.

Conflicts of Interest: There are no conflicts of interest.

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