

# A Study on Social Networking Addiction and Its Influence on Academic Achievement Among Senior Secondary Students of Nagpur

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**Abstract—** The present study examined social networking addiction among senior secondary students in Nagpur and its impact on academic achievement, sleep quality, time management, and daily functioning. A descriptive survey design was adopted, and data were collected from 160 students using a structured Likert-scale questionnaire based on the Social Networking Addiction Scale (SNAS). Stratified random sampling ensured gender-wise representation. Data were analyzed using descriptive statistics, Pearson's correlation, and inferential tests at the .05 level of significance. The findings revealed clear gender differences in social networking site usage. Excessive SNS use moderately affected students' daily routines and showed a negative relationship with academic achievement. The study emphasizes the need for balanced and responsible use of social networking platforms to support students' academic performance and overall well-being.

**Index Terms—** Social Networking, Academic Achievement, Senior Secondary Students; Daily Functioning; Time Management; Sleep Quality

## I. INTRODUCTION

The rapid growth of social networking platforms over the past decade has significantly influenced the behaviour and daily routines of senior secondary students. In Nagpur city, easy access to smartphones and affordable internet has made platforms such as Instagram, WhatsApp, Facebook, Snapchat, and YouTube an integral part of the lives of Class 11 and 12 students. While these platforms support communication, learning, and self-expression, increasing concerns have emerged regarding excessive use and addictive patterns.

Social networking addiction is marked by compulsive online behaviour, preoccupation with digital interactions, and difficulty controlling usage time. Such tendencies often lead to poor concentration, irregular sleep patterns, and reduced academic performance. Emotional dependence on social media may further result in irritability, restlessness, and weakened real-life social relationships.

Given these concerns, it is important to understand how social networking addiction affects the academic achievement and well-being of senior secondary students in Nagpur. This study therefore aims to assess the level of social networking addiction and examine its influence on academic achievement, daily functioning, and emotional health, with the goal of promoting healthier and more balanced digital habits among students.

## II. STATEMENT OF THE PROBLEM

The study aims to measure the frequency of Social Networking Addiction in senior secondary Students in Nagpur District, Maharashtra, India.

## III. OBJECTIVES OF THE STUDY

1. To find out social networking addiction among senior secondary students in Nagpur.
2. To analyse the impact of excessive social networking use on sleep quality, time management, and daily functioning.
3. To examine the relationship between social networking addiction influence and academic achievements among senior secondary students.

#### IV. HYPOTHESIS

H1: There will be a significant level of social networking addiction among senior secondary students in Nagpur.

H2: There will be a significant relationship between the level of social networking addiction and the academic achievement of senior secondary students in Nagpur.

H3: There will be a significant association between social networking addiction and affects students' sleep quality, time management, and daily routine.

**Study Limitations and Scope** 160 senior secondary students from particular Nagpur district schools participated in the study. To guarantee proportionate representation of participants, a stratified random sampling technique was used. The results may not apply to students from different districts, educational levels, or larger populations because the study's scope is restricted to this group and area.

#### V. METHODOLOGY

##### Research Design

A descriptive survey research design was employed to examine social networking addiction among senior secondary students in Nagpur and its impact on academic achievement, sleep quality, time management, and daily functioning.

##### Population/ Sample and Sampling Technique

The participants consisted of 160 senior secondary students drawn from selected schools in the Nagpur

district. A stratified random sampling technique was used, with gender as the stratification variable, to ensure proportional representation of boys and girls and to support gender-based comparisons. 160 Senior secondary students studying in the Nagpur district.

##### Tool for Data Collection

Data were collected using a structured Likert-type questionnaire based on the Social Networking Addiction Scale (SNAS) developed by Md. Ghazi Shah Nawaz, Dr. Nivedita Ganguli, and Manchong Limlunthang Zou. The instrument measured dimensions of social networking addiction, academic focus, and daily routine, including sleep quality and time management.

#### VI. DATA ANALYSIS

Data were analyzed using descriptive statistics (frequency, percentage, and mean), Pearson's correlation to examine relationships between variables.

##### Data Analysis and Interpretation

**Objective 1:** To find out social networking addiction among senior secondary students in Nagpur.

To study social networking addiction among senior secondary students, data were collected from 160 students, comprising 78 girls and 82 boys. Students were asked to indicate the social networking site they use most frequently. The gender-wise distribution is presented below.

Table 1: Social Networking Site Usage among Senior Secondary Students

Social Networking Site	Girls (N-78)	Percentage %	Boys (N-82)	Percentage %
Instagram	14	17.95%	42	51.22%
WhatsApp	22	28.21%	14	17.07%
YouTube	32	41.03%	26	31.71%
Snapchat	06	7.69%	—	—
Twitter	02	2.56%	—	—
Pinterest	02	2.56%	—	—
TOTAL	78	100%	82	100%

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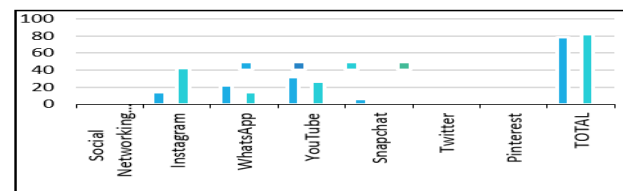
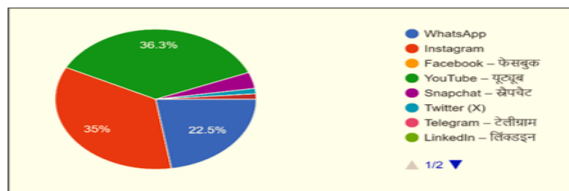


Figure 1 & 2: Data showing the Gender-wise use of Social Networking Sites among Senior Secondary Students

Table 1 shows distinct gender differences in social networking site usage among senior secondary students in Nagpur. Among girls, YouTube is the most preferred platform (41.03%), followed by WhatsApp (28.21%) and Instagram (17.95%). The higher use of video-based and communication platforms suggests a tendency toward prolonged engagement. Other platforms such as Snapchat, Twitter (X), and Pinterest show minimal usage among girls.

In contrast, boys predominantly use Instagram (51.22%), indicating a strong preference for visual and peer-oriented content. YouTube (31.71%) and WhatsApp (17.07%) follow, while no usage of other platforms is reported.

Overall, the findings indicate that boys are more inclined toward Instagram, whereas girls show greater engagement with YouTube and WhatsApp, highlighting gender-based differences in social networking addiction patterns. Thus, the data adequately fulfills Objective 1 by identifying the extent and nature of social networking addiction among senior secondary students in Nagpur.

Objective 2: To analyse the impact of excessive social networking use on sleep quality, time management, and daily functioning.

Frequency of daily SNS usage In summary, 38.8% of students report working two hours a day. A sizable minority that may be at risk of excessive use, 35.0% of respondents use SNS for three hours or more every day (3 hours = 18.75% + >3 hours = 16.25%). 26.3% spend less than an hour a day on SNS.

Table 2.1: Daily SNS usage frequency table (N = 160)

Category	Frequency (f)	Percentage (%)
Less than 1 hour	42	26.25%
2 hours	62	38.75%
3 hours	30	18.75%
More than 3 hours	26	16.25%
Total	160	100.00%

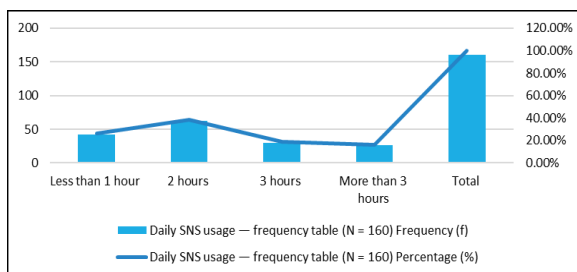


Figure 2.1: Daily SNS Usage Frequency Distribution (in Hours)

The analysis of the Sleep Quality Index revealed that the majority of students fell within the very low to low impact categories, suggesting that SNS usage did not significantly disturb sleep for most respondents. However, a noticeable proportion of students were placed in the moderate to high impact categories, indicating that late-night online engagement led to sleep neglect and difficulty in waking up early. These findings suggest that while the overall effect of SNS usage on sleep quality is limited, excessive use adversely affects sleep patterns among a specific group of students, thereby partially supporting Objective 2 of the study.

Table 2.2: Time Management Index (N = 160)

Index Score Range	Level of Time Management Impact	Frequency (f)	Percentage (%)
2 – 3	Very Low (Good time control)	24	15.00
4 – 5	Low (Minor issues)	36	22.50
6 – 7	Moderate (Noticeable loss of time control)	52	32.50
8 – 9	High (Poor time management)	36	22.50
10	Very High (Severe time management problems)	12	7.50
Total		160	100.00

The responses reflect varied perceptions of online behavior among students. While a section of students agreed that being online feels appealing due to the absence of strict rules, a larger proportion disagreed or strongly disagreed. This indicates that most students recognize the importance of self-discipline and structured use of social networking sites.

Nevertheless, the agreement expressed by some students suggests that online spaces are perceived as rule-free environments, which may encourage prolonged or unplanned usage. Such behavior can negatively affect time management and make it difficult to maintain regular daily routines, particularly among students with higher levels of SNS engagement.

Overall, the findings indicate that although the majority of students manage their online time responsibly, excessive and unregulated use of social networking sites poses a risk to effective time

management for a specific group of students, thereby supporting Objective 2 of the study. Bottom of Form

Table 2.3: Impact of Social Networking on Daily Functioning of Senior Secondary Students (N=160)

Response Category	Strongly Agree (1)	Agree (2)	Undecided (3)	Disagree (4)	Strongly Disagree (5)
Percentage (%)	16.25	53.75	38.75	40	42.5

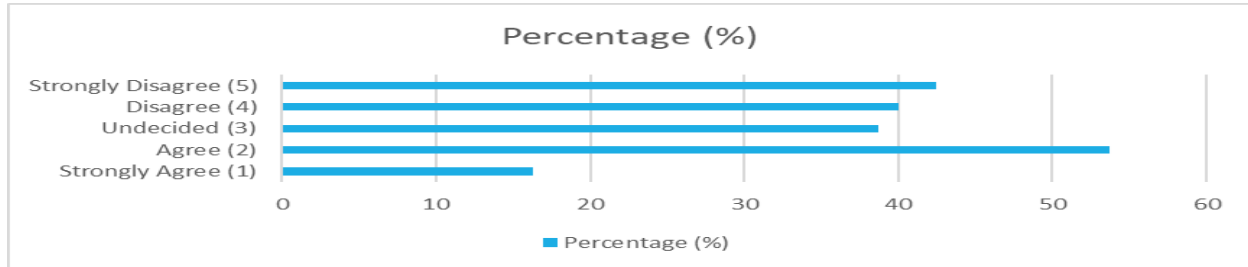


Figure 2.3: Impact of Social Networking on Daily Functioning of Senior Secondary Students”

The data indicate that social networking has a notable impact on students’ daily functioning. A majority of students fall under Agree (53.75%) and Strongly Agree (16.25%), showing that SNS use influences their routines, priorities, and emotional well-being. Fewer students are undecided or disagree, suggesting that most students experience some disruption in daily activities due to social networking.

Table 2.4: Impact of Social Networking on Daily Functioning, Sleep Quality, and Time Management of Senior Secondary Students (N=160)

Response Category	Daily Functioning (%)	Sleep Quality (%)	Time Management (%)
Strongly Agree (1)	16.25	7.5	6.25
Agree (2)	53.75	23.75	22.5
Undecided (3)	38.75	18.75	15
Disagree (4)	40	12.5	17.5
Strongly Disagree (5)	42.5	12.5	13.75

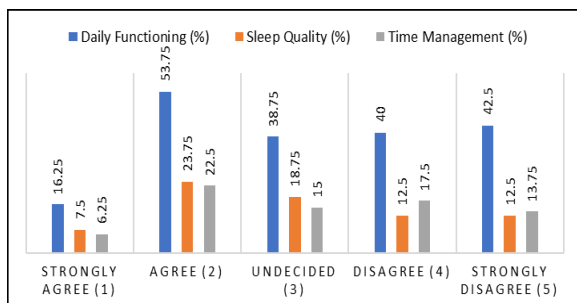


Figure 3: Daily Functioning, Sleep Quality, and Time Management among senior secondary students

The graph shows that social networking affects daily functioning the most, sleep quality moderately, and time management the least among senior secondary students. Most students report routine disruptions, some experience late bedtimes, and fewer struggle with managing tasks due to SNS use.

Objective 3: To examine the relationship between social networking addiction influence and academic achievements among senior secondary students.

Data Interpretation:

comparison table combining SNS usage and academic achievement:

Table 3: Relationship between social networking addiction and academic achievements among senior secondary students.

Group	Mean	Standard Deviation	Correlation
Social networking	82.6	2.5173	-1
Academic Achievement	61.7	4.1012	

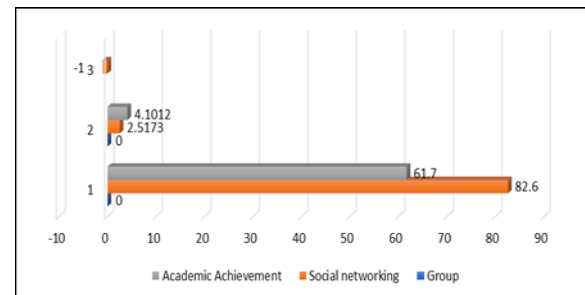


Figure 3.1 Correlation between Social Networking and Academic Achievement among Senior Secondary Student

### Interpretation

With a mean score of 82.6 and a standard deviation of 2.5173, the students' use of social networking is comparatively high and steady. With a mean Academic Achievement score of 61.7 and a standard deviation of 4.1012, students' academic performance is comparatively lower and more variable.

Academic achievement and social networking have a perfect negative correlation, according to the correlation coefficient ( $r = -1$ ). This suggests that academic achievement declines proportionately as social networking usage rises. There is negative & a very high correlation between academic performance and social networking usage among senior secondary students.

Therefore, the results imply that increased participation in social networking activities may have a negative impact on the academic performance of senior secondary students.

### VII. FINDINGS AND CONCLUSION

- 1 According to the study, senior secondary students in Nagpur use social networking sites as Instagram, Whatsapp, Youtube, Snapchat, Twitter, Pinterest differently depending on their gender; girls use a greater variety of platforms, while boys prefer visually appealing apps like Instagram.
- 2 Students' sleep quality, time management, and everyday functioning were all somewhat impacted by excessive SNS use, with daily routine being the most affected (70%).
- 3 A negative correlation between academic achievement and social networking addiction was found, suggesting that higher SNS usage is associated with lower academic performance.
- 4 While female students performed better academically and used SNS less frequently, male students who used SNS more frequently demonstrated lower academic achievement.
- 5 The results show that social networking addiction has a substantial impact on students' daily schedules and academic achievement, highlighting the necessity of using social networking sites responsibly and in moderation.

### VIII. SUGGESTIONS

**Encourage Balanced SNS Use:** To reduce detrimental effects on everyday functioning and academic performance, parents and schools should encourage students to use social networking sites in a purposeful and balanced manner.

**Time Management Training:** Students may be able to control their use of social networking sites, especially at night and during study hours, if schools implement time-management and digital discipline programs.

**Academic Awareness Programs:** Students should attend awareness sessions that highlight the negative effects of excessive SNS use on academic performance, with a focus on high-usage groups.

**Parental Guidance along with Monitoring:** Parents should receive guidance on how to encourage healthy digital habits at home and keep an eye on their children's SNS usage patterns.

**Counselling and Support Services:** Problems with excessive SNS use may be addressed by school counselling services.

**Use of SNS for Education:** To support academic learning, teachers can incorporate social networking sites into their lesson plans. This will direct students' interest in SNS toward useful, cooperative, and instructive activities.

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