



Impact of Social Media Usage on Self-Esteem And Anxiety Among School Students.

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Abstract:

The rapid proliferation of social media has transformed how adolescents interact, express themselves, and perceive their social identities. While these platforms offer unique avenues for creativity, connection, and information exchange, there is growing concern among educators, psychologists, and parents regarding the psychological implications of excessive and unregulated social media use, particularly among school-aged students.

This study investigates the relationship between social media usage and psychological well-being, focusing specifically on two critical constructs: self-esteem and anxiety. Drawing from both global and Indian contexts, the study synthesizes existing literature and uses a mixed-method approach to explore how the frequency, nature, and intent behind social media use influence emotional health. Previous studies (e.g., Twenge & Campbell, 2018; Keles et al., 2020) have indicated correlations between high screen time and adverse mental health outcomes, including symptoms of anxiety and diminished self-worth. Furthermore, patterns such as passive scrolling, public feedback-seeking, and constant comparison have been associated with psychological vulnerabilities, especially among adolescents undergoing identity formation.

This study will analyse school students' social media habits and correlate them with validated psychological scales for self-esteem and anxiety. By providing a nuanced understanding of these associations, the study aims to recommend practical interventions for schools, parents, and policymakers, promoting healthier digital habits and emotional resilience among students. The findings will contribute to the growing discourse on digital hygiene and youth mental health in the digital era.

Keywords- Self-Esteem, Anxiety, Intervention strategies, social media usage, adolescents, psychological well-being, screen time, digital behaviour, emotional health, passive scrolling, social comparison, identity formation, school students, mental health.

INTRODUCTION

In the contemporary digital age, social media has become an integral part of daily life, especially among school students. Platforms such as Instagram, Facebook, Snapchat, and WhatsApp are widely used for communication, entertainment, and self-expression. With the rapid increase in smartphone accessibility and internet penetration, young individuals are engaging with social media at an increasingly early age. While these platforms offer numerous benefits, including enhanced connectivity and access to information, concerns have been raised regarding their psychological impact on adolescents.

Self-esteem, defined as an individual's overall sense of self-worth or personal value, plays a crucial role in the emotional and psychological development of school students. Adolescence is a particularly sensitive period during which individuals form their identity and become more susceptible to external influences. Social media, with its emphasis on appearance, popularity, and peer validation through likes, comments, and shares, can significantly shape how students perceive themselves. Constant exposure to curated and often idealized representations of others' lives may lead to unfavourable social comparisons, potentially lowering self-esteem.

In addition to self-esteem, anxiety has emerged as a growing mental health concern among school students. Anxiety refers to feelings of worry, nervousness, or unease, often about uncertain outcomes. Excessive social media usage has been associated with increased anxiety levels due to factors such as fear of missing out (FOMO), cyberbullying, online peer pressure, and the need for constant social validation. The pressure to maintain an online presence and respond promptly to social interactions can further contribute to stress and emotional distress among adolescents.

Given the widespread use of social media and the vulnerability of school students, it is essential to examine its impact on their mental well-being. This study aims to explore the relationship between social media usage, self-esteem, and anxiety among school students, highlighting both the potential risks and implications for mental health. Understanding these effects can help educators, parents, and policymakers develop strategies to promote healthier digital habits and support the psychological well-being of young individuals.

NEED OF STUDY

The need for the present study arises due to several important reasons in the context of modern education and adolescent development: With over 60% of Indian teenagers reported to be active social media users, concerns over its impact on their mental well-being have become urgent. Multiple studies have suggested that prolonged exposure to curated digital content contributes to low self-esteem, anxiety, and identity confusion. While global research on this issue is expanding, Indian school students remain underrepresented in the literature

OBJECTIVES

- To assess the relationship between the duration of social media use and self-esteem in school students.
- To assess the relationship between the duration of social media use and anxiety levels.
- To compare levels of self-esteem and anxiety across male and female students.
- To explore the difference in outcomes based on active vs passive usage.

RESEARCH METHODOLOGY

The methodology section outlines the plan and method that how the study is connected. This includes Universe of the study, sample of the study, Data and Sources of data study variables and analytical framework.

Population & Sample

- Target: School students (Grade 9–12)
- Sample Size: 120 students
- Sampling: Stratified random sampling (gender-balanced)
- Location: Urban CBSE schools.

Research Design

Descriptive, correlational survey-based design.

Inclusion Criteria:

- Students studying in Classes IX–XII
- Students actively using social media
- Students willing to participate

Exclusion Criteria:

- Students not using social media
- Students below Class IX
- Incomplete or invalid responses

Research Variables

- Independent Variable: Social Media Usage
- Dependent Variables: Self-Esteem, Anxiety
- Moderating Variable: Gender (if applicable)
- Social-Media-Usage → Score (1–5 scale)
 - Self-Esteem → Score (10–30 scale)
 - Anxiety → Score (5–25 scale)

Demographic And Work Profile-

The information was collected through the Google Form shared which included specific questions.

Data Collection

An informed consent form was obtained, which was one of the sections of the Google form. The subjects were educated about their rights as participants-

- Permission obtained from school authorities
- Participants informed about study purpose
- Questionnaires distributed and collected
- Responses recorded and prepared for analysis

Data Extraction

The forms submitted were converted into Microsoft Excel through Google and were tabulated for descriptive assessment.

Data Analysis

Data was tabulated in Excel. Mean and Standard deviation were applied for all the numerical data.

Quantitative Analysis:

- **Mean** → Average scores
- **Standard Deviation** → Variability
- **Correlation (Pearson's r)** → Relationship between variables
- **t-test** → Group comparison

RESULTS

- Social media usage is at a **moderate level**
- Students show **average self-esteem and anxiety levels**
- **No significant relationship** found between social media usage and psychological variables
- **No gender differences** observed.

Socio Demographic Data

“Data was collected from 120 students using structured questionnaires. Responses were coded and tabulated for statistical analysis.”

Table:

Student -ID	Gender	Social-Media Usage	Self Esteem	Anxiety
1	Female	5	27	17
2	Male	3	14	14
3	Male	5	12	23
4	Male	4	28	11
5	Female	5	12	21
6	Male	2	22	13
7	Male	5	12	20
8	Male	2	24	15
9	Male	4	28	18
10	Female	4	27	13
11	Female	3	19	17
12	Female	3	19	8
13	Female	2	29	9
14	Female	1	25	22
15	Male	2	28	12
16	Male	1	26	20
17	Female	2	12	23
18	Female	1	13	22
19	Male	2	10	16
20	Male	5	17	14
21	Male	2	25	21
22	Female	3	18	5
23	Male	2	28	19
24	Female	1	11	23
25	Female	4	14	15
26	Male	2	21	13
27	Female	1	12	10
28	Female	2	18	17
29	Male	4	12	22
30	Male	3	27	22
31	Male	3	18	13
32	Female	1	30	8
33	Female	1	29	7
34	Male	5	11	5
35	Male	5	11	22
36	Male	2	19	21
37	Female	3	18	25
38	Male	3	15	11
39	Female	4	30	9
40	Female	1	11	18
41	Male	3	13	15
42	Female	2	29	10
43	Male	1	19	19

44	Female	5	27	14
45	Female	5	18	18
46	Female	5	28	10
47	Female	2	22	19
48	Male	2	13	11
49	Male	5	24	20
50	Female	3	11	25
51	Female	2	24	14
52	Female	1	27	8
53	Female	5	23	7
54	Female	1	11	22
55	Female	2	18	5
56	Male	1	28	24
57	Male	1	12	16
58	Male	2	20	11
59	Male	4	26	12
60	Male	2	26	14
61	Male	4	22	16
62	Male	3	22	18
63	Female	1	23	6
64	Male	1	28	9
65	Female	1	17	21
66	Female	1	22	19
67	Female	2	12	24
68	Male	3	13	14
69	Male	1	17	8
70	Female	1	23	10
71	Female	2	28	8
72	Male	3	17	24
73	Male	3	29	25
74	Female	5	23	15
75	Female	5	24	25
76	Female	2	22	10
77	Female	1	29	17
78	Male	4	20	23
79	Male	3	19	12
80	Female	1	12	25
81	Female	3	17	22
82	Female	2	12	15
83	Male	3	27	24
84	Male	4	24	7
85	Male	2	29	18
86	Male	2	30	19
87	Male	5	12	8
88	Female	4	11	20
89	Male	1	17	15
90	Male	4	14	12
91	Female	1	19	18
92	Male	2	11	18
93	Female	1	13	12
94	Male	1	13	16

95	Female	4	15	15
96	Male	4	22	21
97	Female	4	13	9
98	Male	4	18	17
99	Male	5	19	11
100	Male	3	24	7
101	Male	1	20	15
102	Female	2	12	15
103	Female	2	21	21
104	Female	2	30	16
105	Female	5	10	7
106	Female	3	12	8
107	Male	1	25	24
108	Male	5	18	9
109	Female	2	25	25
110	Male	5	20	7
111	Male	3	14	13
112	Male	4	18	14
113	Male	4	14	17
114	Male	5	21	8
115	Male	4	28	22
116	Male	4	20	21
117	Male	1	20	8
118	Male	3	11	15
119	Male	5	22	21
120	Male	2	22	9

Table 01: Descriptive Statistics (Mean & Standard Deviation)

Variable	Mean	Standard Deviation
Social Media Usage	3.05	1.44
Self-Esteem	20.45	6.57
Anxiety	13.94	6.04

Interpretation:

- The mean social media usage (3.05) indicates a moderate level of usage among students.
- The mean self-esteem score (20.45) suggests an average level of self-worth.
- The mean anxiety score (13.94) indicates a moderate level of anxiety.
- Standard deviation values show moderate variability among students.

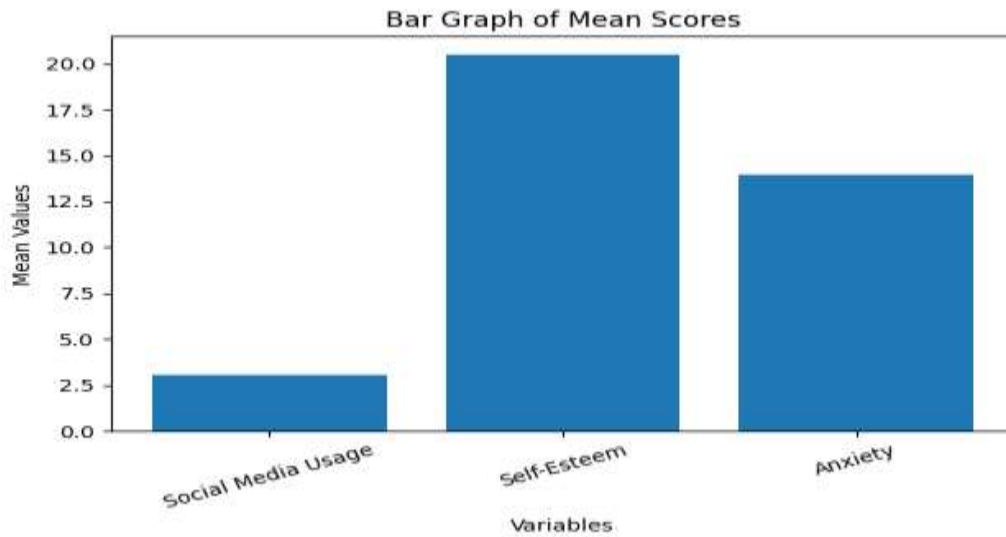
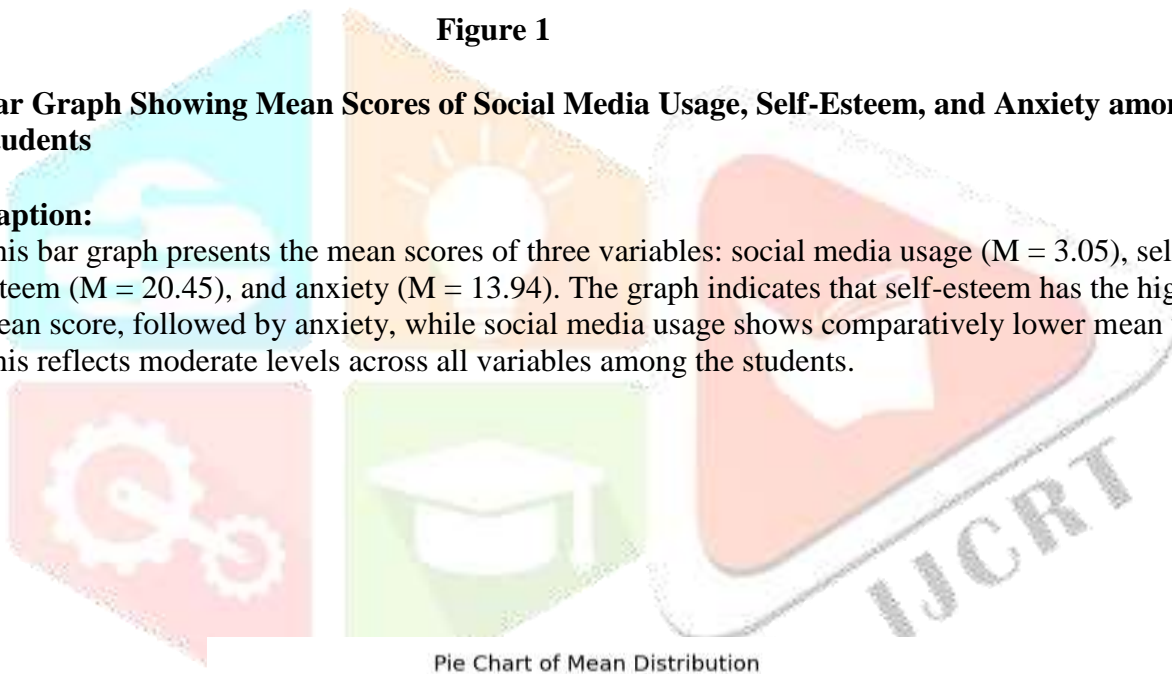


Figure 1

Bar Graph Showing Mean Scores of Social Media Usage, Self-Esteem, and Anxiety among Students

Caption:

This bar graph presents the mean scores of three variables: social media usage ($M = 3.05$), self-esteem ($M = 20.45$), and anxiety ($M = 13.94$). The graph indicates that self-esteem has the highest mean score, followed by anxiety, while social media usage shows comparatively lower mean values. This reflects moderate levels across all variables among the students.



Pie Chart of Mean Distribution

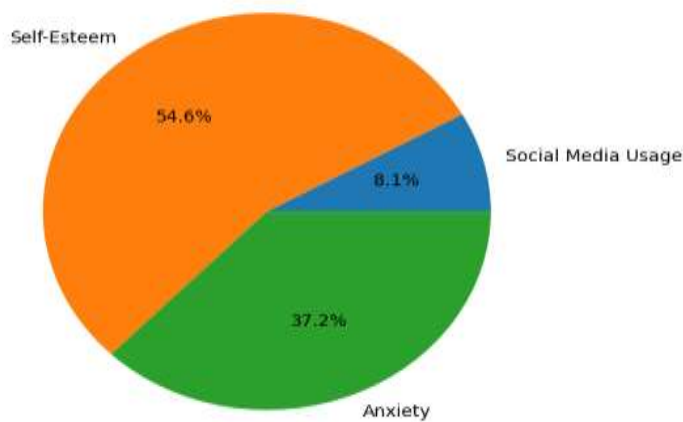


Figure 2

Pie Chart Showing Proportionate Distribution of Mean Scores across Variables

Caption:

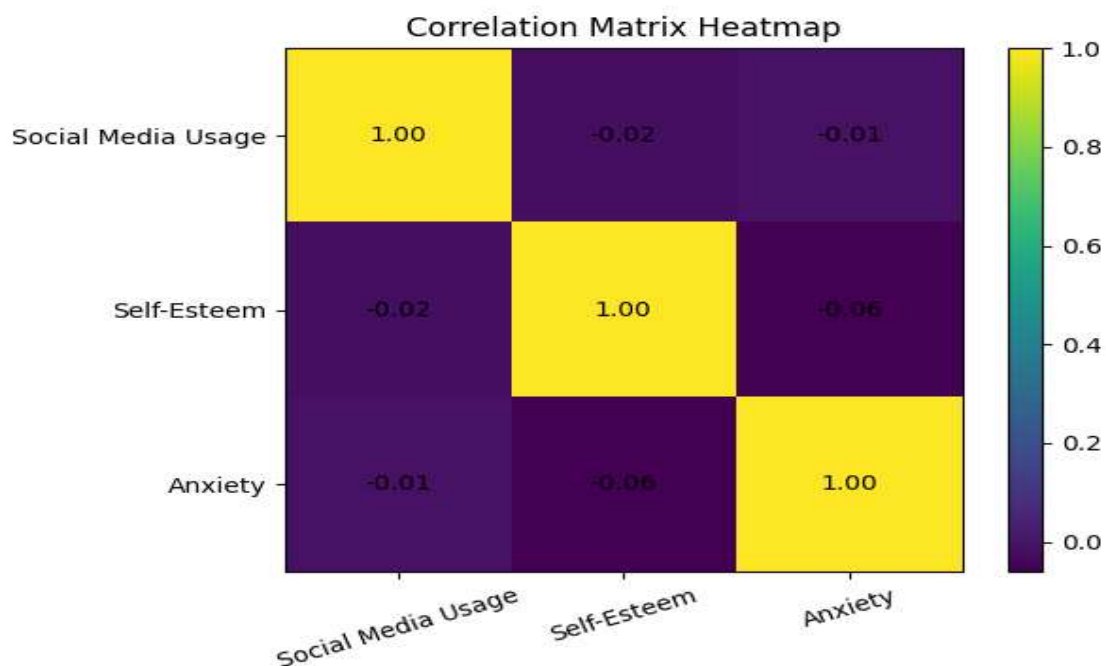
The pie chart illustrates the proportional distribution of mean scores among social media usage, self-esteem, and anxiety. Self-esteem constitutes the largest share (54.6%), followed by anxiety (37.2%), and social media usage (8.1%). This representation highlights the relative contribution of each variable to the overall dataset.

Correlation Matrix (Pearson's r)

Variables	Usage	Self-Esteem	Anxiety
Social Media Usage	1.00	-0.02	-0.01
Self-Esteem	-0.02	1.00	-0.06
Anxiety	-0.01	-0.06	1.00

Interpretation:

- Social media usage shows a **very weak negative correlation with self-esteem** ($r = -0.02$)
- It also shows a **very weak relationship with anxiety** ($r = -0.01$)
- These values indicate **no significant relationship between variables**

**Figure 3**

Heatmap Showing Correlation Matrix (Pearson's r) among Social Media Usage, Self-Esteem, and Anxiety

Caption:

The heatmap represents the Pearson's correlation coefficients among the three variables: social media usage, self-esteem, and anxiety. Social media usage shows a very weak negative correlation with self-esteem ($r = -0.02$) and anxiety ($r = -0.01$). Similarly, self-esteem and anxiety are also weakly negatively correlated ($r = -0.06$). The near-zero values indicate negligible relationships among the variables, suggesting that social media usage does not significantly influence self-esteem or anxiety levels in the present sample.

t-Test (Gender Differences)**(a) Social Media Usage**

Group	Mean	t-value	p-value
Male	—	-0.26	0.79
Female	—		

👉 Interpretation:

- $p > 0.05 \rightarrow$ **No significant difference**
- Male and female students use social media at similar levels

Discussion of Results:

The findings of the present study reveal that social media usage does not have a statistically significant relationship with self-esteem and anxiety among school students. This result may be interpreted in several ways.

Firstly, the **moderate level of social media usage** suggests that students are using social media in a **balanced manner**, which may not significantly harm their psychological well-being. Unlike excessive or addictive usage, moderate engagement may not lead to strong negative outcomes.

Secondly, the absence of a strong relationship may indicate that **other factors**, such as:

- Family environment
- Academic stress
- Peer relationships
- Personality traits play a more significant role in determining self-esteem and anxiety levels.

These findings differ from some previous studies (e.g., Fardouly et al., 2015; Twenge & Campbell, 2018), which reported negative impacts of social media. However, they align with studies suggesting that the impact of social media is **context-dependent and varies across individuals**.

The lack of gender differences suggests that both male and female students are **equally exposed to and affected by social media**, reflecting the widespread and universal nature of digital engagement.

Recommendations

Based on the findings of the study, the following recommendations are proposed:

1. **Promotion of Digital Awareness Programs:**

Schools should organize workshops and awareness programs to educate students about healthy and responsible social media usage.

2. **Integration of Mental Health Education:**

Curriculum should include topics related to emotional well-being, self-esteem building, and anxiety management.

3. **Parental Guidance and Monitoring:**

Parents should monitor and guide their children's social media usage, ensuring a balanced routine between online and offline activities.

4. **Encouraging Positive Use of social media:**

Students should be encouraged to use social media for educational purposes, skill development, and constructive engagement.

5. **School Counselling Services:**

Schools should strengthen counselling services to help students deal with anxiety, peer pressure, and self-esteem issues.

6. **Time Management Strategies:**

Students should be trained in managing screen time effectively to avoid excessive use of social media platforms.

Suggestions for Future Research

1. **Larger and Diverse Sample:**

Future studies can include a larger sample size across different regions, age groups, and socio-economic backgrounds for better generalization.

2. **Longitudinal Studies:**

Research can be conducted over a longer period to understand the long-term impact of social media on mental health.

3. **Inclusion of Additional Variables:**

Variables such as depression, academic performance, peer relationships, and family environment can be included for deeper analysis.

4. **Platform-Specific Analysis:**

Future studies may examine the effects of specific social media platforms rather than general usage.

5. **Experimental and Intervention-Based Studies:**

Studies can focus on implementing interventions (e.g., digital detox programs) and measuring their effectiveness.

Limitations of the Study

1. **Limited Sample Size:**

The study was conducted on a relatively small sample, which may limit the generalizability of the findings.

2. **Self-Reported Data:**

Data were collected through self-report measures, which may be subject to bias such as social desirability or inaccurate responses.

3. **Cross-Sectional Design:**

The study captures data at a single point in time and does not reflect changes over time.

4. **Limited Variables:**

Only self-esteem and anxiety were considered, whereas other psychological factors may also influence the outcomes.

5. **Lack of Gender Mean Values:**

In gender comparison, detailed mean scores were not available, limiting deeper interpretation.

6. **External Influencing Factors:**

Factors such as family environment, academic stress, and peer influence were not controlled, which may affect results.

CONCLUSION

The study examined the impact of social media usage on self-esteem and anxiety among school students. The findings showed moderate social media use, average self-esteem, and moderate anxiety levels. Correlation analysis revealed no significant relationship between social media usage and the psychological variables. Gender differences were also found to be insignificant. This suggests that social media alone does not strongly influence students' mental health. Overall, multiple factors contribute to adolescents' well-being beyond social media use.

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