
Gender Differences in Social Media Addiction and Self-Concept Among Undergraduate Students in Kolkata

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Abstract

Students' life now a days revolve around social media, which later has an impact on their attitudes, behaviours, and self-concept. This study aims at studying how the undergraduate college students in Kolkata differ by gender in terms of their social media addiction and self-concept. This study involved **200 undergraduate students**, 100 of whom were male and 100 of whom were female. The variables were evaluated using the **Self-Concept Scale (Rastogi, 1979)** and the **Social Media Addiction Scale (Cengiz Sahin, 2018)**. SPSS 25 was used to perform statistical analyses, such as **correlation analyses and independent samples t-tests**. Although **female** students showed **slightly higher levels of social media addiction**, there was **no significant difference** between the male and female students in terms of **social media addiction**. Male students had **significantly higher levels of self-concept** than the female students. **Males' self-concept** and social media addiction showed a **significant negative correlation**, suggesting an association between higher levels of social media addiction with a lower self-concept. For **female** students, **no significant correlation** was found. The results emphasize on the need for gender-specific interventions to enhance self-concept and encourage social media usage in a responsible manner for the students. Future studies should investigate further into this relationship as well as other mediating variables.

Keywords: Social media addiction, self-concept, gender, undergraduate college students

I n t e r o d u c t i o n

In recent years, social media addiction has become very popular, especially among college students who use different social media platforms frequently. Social media has become an important part of the student's everyday routine in the current digital environment, which influencing their interactions, ideas and sense of self. Although social media platforms (like Facebook, Instagram etc.) provide a platform for entertainment, self-expression and communication, excessive use of it can result in **social media addiction**. "Social media addiction is a behavioural addiction that is characterized by excessive concern about social media, an uncontrollable urge to use social media, and devoting so much time and effort to it that it impairs

other important aspects of life" (Andreassen et al., 2012). The over dependence on social media can result in significant psychological effects, including its effect on individual's self-concept. "Self-concept is an individual's perception of themselves, formed through experiences and interpretations of their environment, including social interactions and feedback from others" (Rosenberg, 1979).

Research has shown that excessive use of social media can result in behavioural addiction, which can impact mental health and academic performance (Hawi & Samaha, 2018; Ning & Inan, 2023). Different factors, such as personality traits, self-esteem, and demographic variables like age and gender, have been linked to social media addiction in the previous studies (Hawi & Samaha, 2018; Zhao et al., 2022).

Some studies have discovered gender differences in social media addiction. For example, one study found that social media addiction is more common in men than in women (Alshanqiti et al., 2023), and another study found that being a woman is a significant risk factor for social media addiction (Zhao et al., 2022). According to research, male and female students may have different motivations for using social media, which could result in differences in their levels of addiction and self-perception. According to a study by Andreassen et al. (2017), women are more likely to be addicted to social media because of their preference for social interaction, self-presentation, and emotional online expression. In contrast to this finding, another study by Kuss & Griffiths (2015), found that males intend to use social media more in comparison to the females, for entertainment, gaming, and information-seeking purpose, which results in different patterns of usage and dependence. According to a different study, women's self-concept was negatively impacted by excessive social media use, especially when they were exposed to online comparisons and idealized beauty standards (Fardouly et al., 2018). However, Nesi & Prinstein (2015) noted in their research that men encounter a different type of influence on their self-concept, which is frequently associated with peer validation, status, and competition in the digital realm. These conflicting results emphasize on the need for more investigation in this area to fully understand how gender contributes to social media addiction.

Another area of research in the recent times is the relationship between social media addiction and self-concept. In the previous studies, self-esteem, a component of self-concept, has been found to be negatively correlated with social media addiction (Hawks & Samaha, 2018; Zhao et al., 2022). Still, in particular the gender differences in this relationship among Kolkata's undergraduate college students have not been well investigated. With focus on gender differences in context to Kolkata's undergraduate college students, this study aims to fill the gaps in the existing research on social media addiction and its relationship with college student's self-concept.

Methodology

Aim: To study the gender differences in social media addiction and self-concept among the undergraduate college students of Kolkata.

Objectives:

1. To assess the levels of social media addiction and self-concept among the male and female undergraduate college students of Kolkata.
2. To compare the levels of social media addiction between male and female undergraduate college students of Kolkata.
3. To compare the levels of self-concept between male and female undergraduate college students of Kolkata.
4. To assess the association between social media addiction and self-concept of the undergraduate college students of Kolkata.

Hypothesis:

1. There will be a significant difference in the levels of social media addiction between male and female undergraduate college students of Kolkata.
2. There will be a significant difference in the levels of self-concept between male and female undergraduate college students of Kolkata.
3. There will be a significant association between social media addiction and self-concept of the undergraduate college students of Kolkata.

Sample selection procedure:

The data was collected through random sampling from different undergraduate colleges of Kolkata (north, south, east and west zones). A total of 200 student's (100 male and 100 female) data were collected.

Inclusion Criteria:

- The age range was 19 to 22 years.
- Students pursuing their undergraduate courses in the general stream from Kolkata.
- The participants who have given the written consent in physical or digital format.
- The participants who have successfully completed the set of questionnaires given.
- The participants who provided their social media account details (existing username and no. of accounts) were included.
- Both male and female undergraduate college students will be included.

Exclusion Criteria:

- Participants with any serious medical, physical or psychiatric illness.
- Any substance abuse except nicotine or tobacco.
- Undergraduate college students pursuing their courses in other than general stream.
- The participants who scored 4 or above 4 in the General Health Questionnaire-28 was excluded.

Tools used:

1. Semi –structured socio- demographic details form: Personal information such as age, gender, educational status, course name and usage of different social media accounts, time spent on the different social media sites, the purpose for usage, the preferred social media site, etc has been collected through this tool.

2. Screening tool: Used in Original (Adapted Locally): General Health Questionnaire (GHQ 28) measure of emotional distress in medical settings, has been divided into four subscales:

somatic symptoms; anxiety/insomnia, social dysfunction, and severe depression. Test-retest reliability is 0.78 to 0.9 and Cronbach's α is 0.9–0.95).

3. Social Media Addiction: Social Media Addiction Scale - Student Form (Cengiz Sahin, 2018): It consists of 29 items grouped under 4 dimensions (virtual tolerance, virtual communication, virtual problem and virtual information). Cronbach's alpha coefficient was found .93 for the whole scale and at values ranging from (.81 to .86) for the sub-factors. **Scoring:** All the items in the scale are positive. The highest score possible is 145 and the lowest score possible is 29. The higher scores indicate that the person perceives himself as a "social media addict". The cut off score for this scale is 87

4. Self-Concept: Self-Concept Scale (Rastogi, 1979): It consists of three constructs of self-concept - perceptual (Physical), conceptual (Psychological) and attitudinal self-concepts. Reliability of the scale by split-half method is 0.87. The scale has content validity.

Scoring: The respondent is provided with five responses alternatives to give his response. Positive items are supposed to be scored from 5 to 1 and the negative items are scored from 1 to 5.

Statistical Analysis:

Descriptive statistics, t-test and correlation analysis were done using SPSS 25.

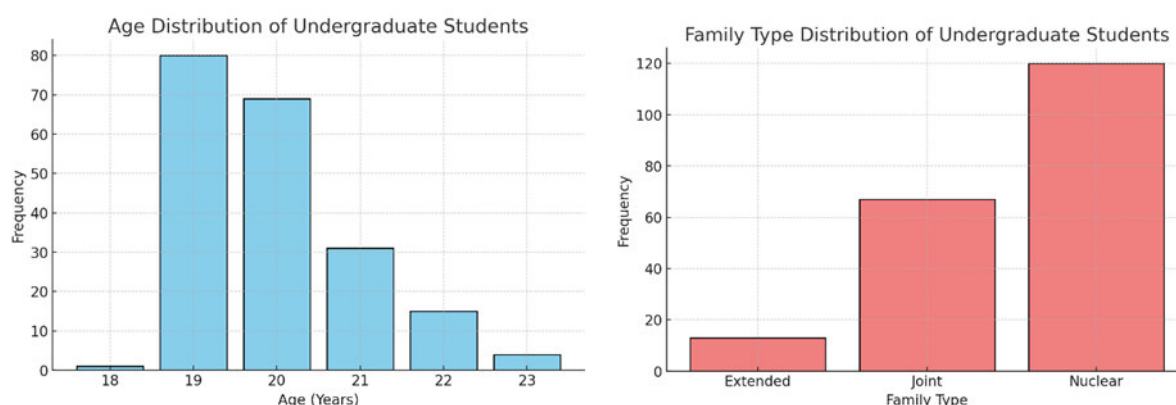
Ethical Consideration:

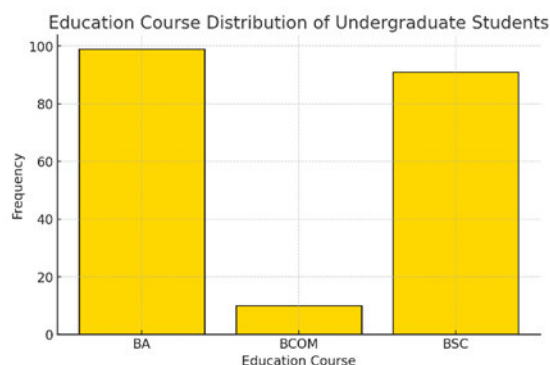
To guarantee the ethical guidelines, the approval from the Ethical Committee was obtained. A written informed (physical or digital) consent was taken from the participants. Confidentiality of participant's data was maintained.

Results and Interpretations

After the necessary statistical analysis was done the results were explained as follows:

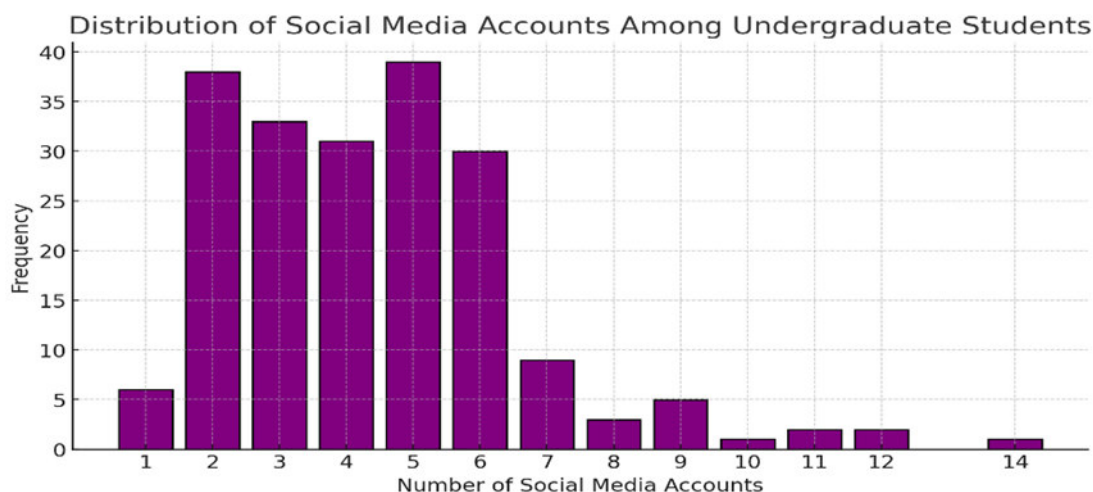
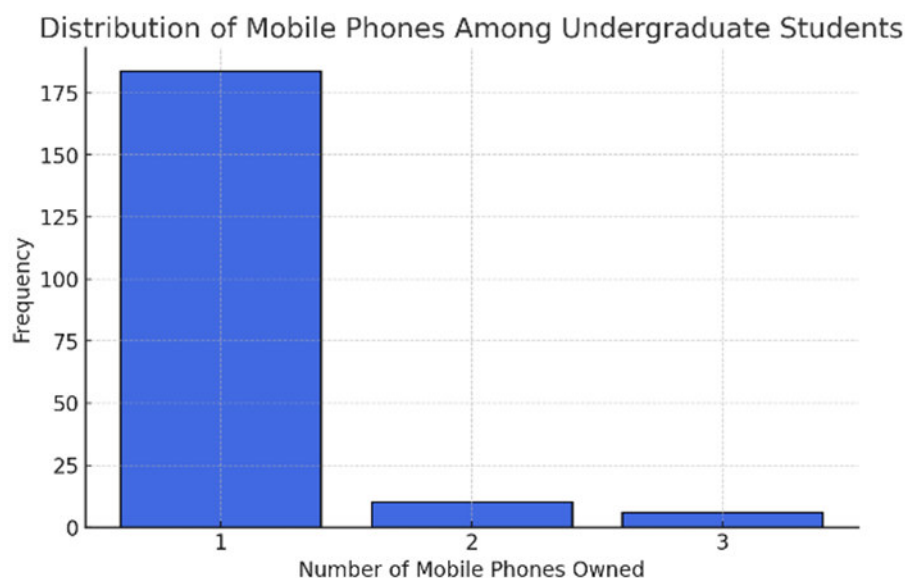
Fig1: shows the Graphical representation of the socio-demographic profile of the undergraduate college students



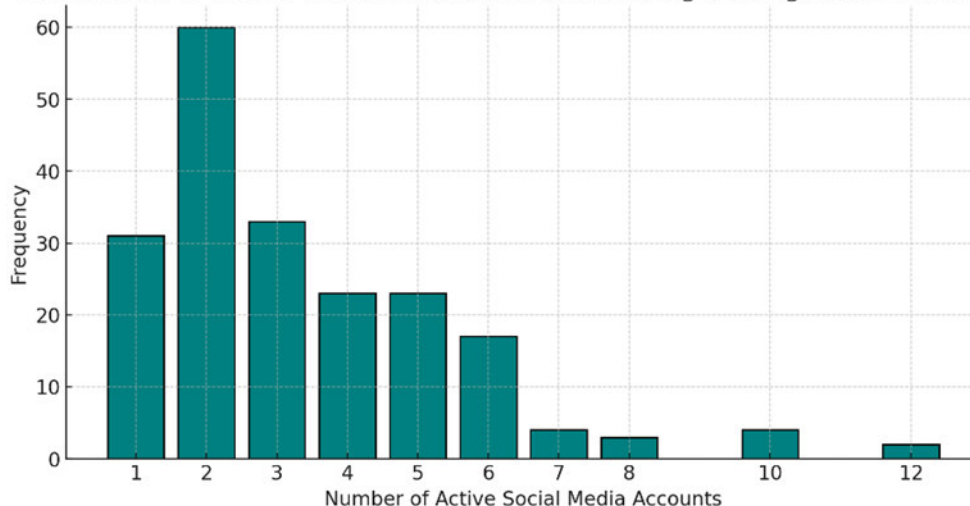


The age distribution chart shows that majority of the students belong to 19 - 20 years age group and most of them come from **nuclear families**.

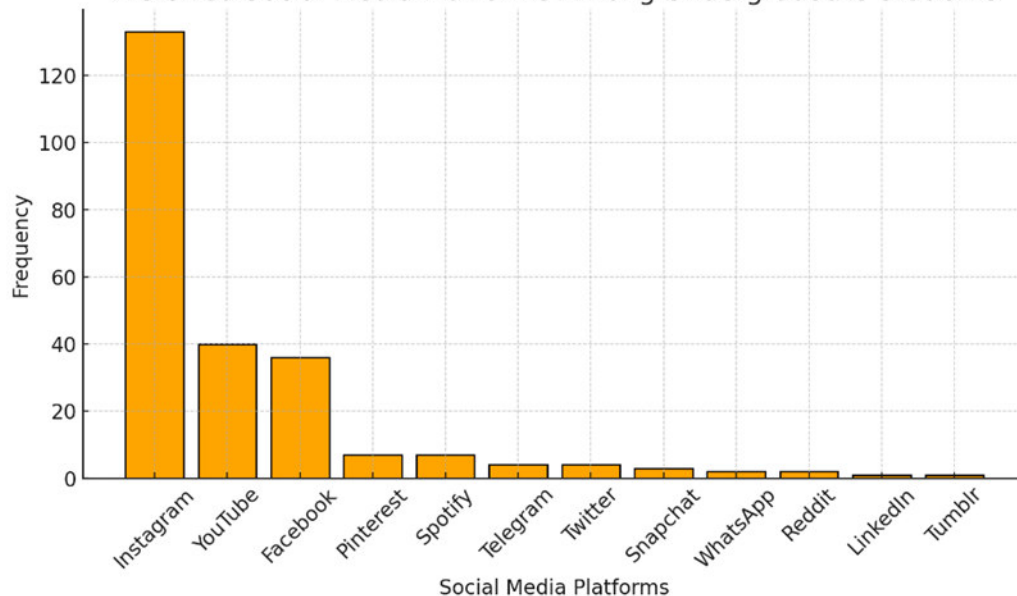
Fig2: Shows the graphical representation of the social media details of the undergraduate college students



Distribution of Active Social Media Accounts Among Undergraduate Students



Preferred Social Media Platforms Among Undergraduate Students



The above charts indicate that most of the students (92%) own only one phone and most of them have 2-5 accounts. Majority of the students have 1-3 active social media accounts, among which most of them prefer Instagram, YouTube and Facebook.

Table 1: Comparison between the male and female undergraduate college students in terms of Social Media Addiction and Self-concept

Categories	Male		Female		t-value	df	p-value
	Mean	S.D.	Mean	S.D.			
Social media addiction	74.44	16.262	78.52	15.378	1.823	198	.070
Self-concept	157.95	18.548	151.82	17.992	-2.372	198	.019*

*significant at 0.05 level

From the above table it can be noted that there is **no significant difference (t-value=1.823)** in the levels of **social media addiction** between the male and female undergraduate students, though from the mean difference it can be said that the female undergraduate students had **slightly higher levels of social media addiction** than the males. Hence, **H₁**: “There will be a significant difference in the levels of social media addiction between male and female undergraduate college students of Kolkata” was **rejected**.

The above table also indicates the **significant difference (t-value= -2.372) at 0.05 level** in the levels of **self-concept** between male and female undergraduate college students. It also highlights that the male undergraduate college students’ self-concept is slightly higher than the females. Hence, **H₂**: “There will be a significant difference in the levels of self-concept between male and female undergraduate college students of Kolkata” was **accepted**.

Table 2: Relationship between social media addiction and self-concept between the male and female undergraduate college students

Correlations		
Social Media Addiction	Self-concept	
	r-value	p-value
Male	-.363**	.000
Female	-.107	.290
Both groups combined (male and female)	-.256**	.000

**significant at 0.01 level

The above data indicates the presence of **significant negative correlation (r-value=-.363) at 0.01 level** between social media addiction and self-concept for **male** undergraduate college students, which means that if social media addiction increases, the self-concept of the male students decreases. For **female** undergraduate college students, **no significant correlation** was found.

When the overall correlation was observed for the **combined groups (both male and female)**, a **significant negative correlation (r-value= -.256) at 0.01 level** was found between social media addiction and self-concept. This implies that as social media addiction increases, self-concept of the undergraduate college students decreases. Hence, **H₃**: “There will be a significant association between social media addiction and self-concept of the undergraduate college students of Kolkata” was **accepted**.

Discussions

The results of this study show that among undergraduate college students, there are notable gender differences in the association between social media addiction and self-concept. Self-concept and social media addiction were significantly negatively correlated in the male students, indicating that self-concept declines as social media addiction rises. This study also reveals that female students have slightly higher levels of social media addiction as compared to the male students. Male students demonstrated significantly higher levels of self-concept in comparison to the female students.

Similar results were found by **Mari et al., 2023** in the study on gender difference in internet addiction, where males were found to be more prone to internet gaming addiction, while females were more to social media addiction and related behaviours. Females were found to be more prone to social media addiction and phubbing behaviours, while males were more likely to develop addictions related to gaming, according to another study by **Varchetta et al., 2024**, which examined gender differences in internet addiction and psychological factors. The observed disparities in male and female students' self-concepts could be attributed to these patterns.

This study found a significant difference in the levels of self-concept between male and female undergraduate college students which is in contrast to the findings of **Ramesh & Waghmare 2018**, where they found no significant difference between male and female college students with self-concept. This significant difference may be due to the influence of social media (**Fardouly et al., 2015**), parental and educational expectations such as sense of independence, leadership roles (**Eccles et al., 2000**), psychological factors such as development of resilience and self-assurance (**Bleidorn et al., 2016**), peer influence and social support (**Pipher, 1994**).

The significant negative correlation between social media addiction and self-concept among male students are in favour of the previous findings of the study by **Xuan & Asyraf 2021**, which suggests that excessive use of social media and more engagements with the social media platforms may negatively affect the individual's perception about themselves and their overall wellbeing.

In contrast, the absence of a significant correlation between social media addiction and self-concept among the female undergraduate college students can suggest the presence of other factors influencing the self-concept of these students. This is in support of the findings from a study on gender differences in social network addiction, where it was found that personal characteristics played an important role in addictive behaviours with gender differences influences the nature of social media addiction (**Martinez et al., 2019**).

So, this study highlights the importance of considering the gender differences while studying the impact of social media use.

Conclusion

The findings of the study will help to enhance the existing knowledge of researchers on the sex-based disparities in self-concept and social media dependency among the undergraduates. The results show that although being addicted to social networks are more common among female students, the relationship of the addiction with the self-concept was more prominent in male students. There was a negative correlation between male students' self-concept and social media addiction with a low relationship of the two variables, indicating that more time spend in social media can affect self-self-esteem. But there were no significant correlations for female students, suggesting that other factors influence self-concept for them. The study calls for gender-specific interventions that encourage students to use social media in a balanced manner and promote their psychological well-being.

Limitations

The study was conducted on undergraduate students in Kolkata, which prevents it from generalizing the findings of the study to students in other regions or countries. The study did not

differentiate between active and passive social media use (e.g., engaging in discussions vs. scrolling through content), which might influence the relationship with self-concept differently.

Implications

Colleges and universities need to establish awareness programs about responsible social media usage and its potential effects on one's mental health. Psychologists and counsellors need to come up with gender-oriented social media addiction techniques or self-concept improvement plans. Positive reinforcement from families and peer groups serves as an important tool for nurturing self-concept among for the female students. Digital platforms may – or may not, depending on their business model – explore ways to support healthy social media usage, such as reducing excessive consumption and limiting exposure to unrealistic representations on social media.

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