

Impact of Social Media Usage on Mental Health Among College Students in the Vidarbha Region: A Comparative Study

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Abstract: The present study aimed to examine the impact of social media usage on mental health among college students in the Vidarbha region of Maharashtra. With the rapid expansion of digital platforms, young individuals are increasingly exposed to prolonged screen time, which may influence their psychological well-being. A total of 200 students were selected using a purposive sampling technique and divided into two groups: high social media users (more than three hours per day) and low social media users (less than 30 minutes per day). Mental health was assessed using the General Health Questionnaire (GHQ-12), a widely recognized instrument developed by Goldberg to measure psychological distress and well-being.

The findings revealed that students with high social media usage experienced significantly higher levels of stress, sleep disturbances, and depressive symptoms compared to low users. In contrast, students with limited social media exposure demonstrated better concentration, decision-making ability, and overall emotional stability. Statistical analysis using independent t-tests indicated significant differences ($p < 0.05$) between the two groups across both positive and negative dimensions of mental health.

The study highlights that excessive social media engagement may lead to adverse psychological outcomes due to factors such as social comparison, reduced face-to-face interaction, and disrupted sleep patterns. Conversely, controlled usage is associated with improved mental health outcomes. The findings emphasize the need for awareness regarding healthy digital habits and the promotion of balanced lifestyles among students. It is recommended that educational institutions and policymakers encourage responsible social media use to safeguard the mental well-being of young populations.

Keywords: Social Media, Mental Health, GHQ-12, College Students, Vidarbha Region, Stress, Depression, Digital Behavior

I. INTRODUCTION

Mental health is a vital component of overall well-being, influencing how individuals think, feel, and behave in daily life. According to the World Health Organization (WHO, 2001), mental health is not merely the absence of mental illness but a state of complete physical, psychological, and social well-being. In the contemporary digital era, social media has emerged as a dominant force shaping the lifestyles and behaviors of young individuals, particularly college students.

Social media platforms such as Facebook, Instagram, and WhatsApp have transformed communication, learning, and social interaction. While these platforms provide opportunities for connectivity and information sharing, excessive use has been associated with various mental health issues, including anxiety, depression, and stress (Keles, McCrae, & Grealish, 2020). Research suggests that prolonged screen time and constant exposure to online content can lead to negative self-comparisons, reduced self-esteem, and emotional instability (Vannucci, Flannery, & Ohannessian, 2017).

Furthermore, studies have shown that high social media usage disrupts sleep patterns and reduces academic performance among students (Twenge & Campbell, 2018). The addictive nature of digital platforms often leads to decreased physical activity and limited face-to-face interactions, which are essential for psychological well-being. In contrast, moderate and controlled use of social media may provide social support and enhance communication (Primack et al., 2017).

In the Indian context, particularly in semi-urban regions such as Vidarbha, there is limited empirical research examining the relationship between social media usage and mental health among students. Therefore, the present study aims to investigate and compare the mental health status of students with high and low social media usage. The findings of this study are expected to contribute to the existing literature and provide insights for promoting healthy digital behaviors among youth.

II. METHODS

Sample

The study was conducted on **200 college students** from various institutions in the Vidarbha region of Maharashtra.

- High Social Media Users (n = 100): > 3 hours/day
- Low Social Media Users (n = 100): < 30 minutes/day

Sampling Technique

A **purposive sampling method** was used to select participants based on their daily social media usage.

Tool Used

Mental health was assessed using the **General Health Questionnaire (GHQ-12)** developed by Goldberg (1972). The tool consists of 12 items measuring positive and negative aspects of mental health using a 4-point Likert scale.

Data Collection Procedure

- Permission obtained from colleges
- Students informed about purpose of study
- Consent taken before participation
- Questionnaire administered in classroom setting
- Data collected over 4–6 weeks

Statistical Analysis

- Mean and Standard Deviation calculated
- Independent **t-test** used to compare groups
- Significance level set at **p < 0.05**

III. RESULTS

TABLE – 1
 POSITIVE MENTAL HEALTH DIMENSIONS (GHQ-12)

Sr. No.	GHQ-12 (Positive) Items	High Social Media Users (n=100) Mean ± SD	Low Social Media Users (n=100) Mean ± SD	t-value	Significance
1	Able to concentrate	3.05 ± 0.75	3.90 ± 0.60	2.45	P < 0.05
2	Playing a useful role	3.20 ± 0.70	3.85 ± 0.55	2.10	P < 0.05
3	Capable of making decisions	2.85 ± 0.80	4.10 ± 0.70	3.15	P < 0.05
4	Able to enjoy day-to-day activities	3.00 ± 0.85	4.35 ± 0.65	3.40	P < 0.05
5	Able to face problems	3.10 ± 0.70	3.80 ± 0.60	2.25	P < 0.05
6	Feeling reasonably happy	2.95 ± 0.78	4.40 ± 0.68	3.60	P < 0.05

Table 1 presents the mean scores, standard deviations, and t-values of six positive dimensions of mental health among high and low social media users. The results indicate a consistent pattern in favor of low social media users across all dimensions.

With regard to **ability to concentrate**, low social media users (Mean = 3.90 ± 0.60) scored significantly higher than high users (Mean = 3.05 ± 0.75), indicating better attention and cognitive focus. Similarly, in terms of **playing a useful role**, low users (Mean = 3.85 ± 0.55) performed better than high users (Mean = 3.20 ± 0.70), showing greater social and functional engagement.

A significant difference was observed in **decision-making ability**, where low users (Mean = 4.10 ± 0.70) scored substantially higher than high users (Mean = 2.85 ± 0.80). Likewise, **enjoyment of day-to-day activities** was significantly higher among low users (Mean = 4.35 ± 0.65) compared to high users (Mean = 3.00 ± 0.85).

In addition, low social media users demonstrated better **ability to face problems** (Mean = 3.80 ± 0.60) than high users (Mean = 3.10 ± 0.70). Finally, in terms of **feeling reasonably happy**, low users (Mean = 4.40 ± 0.68) scored significantly higher than high users (Mean = 2.95 ± 0.78).

Overall, all six positive dimensions showed statistically significant differences ($p < 0.05$), indicating that **low social media usage is associated with better psychological well-being, emotional stability, and cognitive functioning**.

TABLE – 2
NEGATIVE MENTAL HEALTH DIMENSIONS (GHQ-12)

Sr. No.	GHQ-12 Items (Negative)	High Social Media Users (n=100) Mean \pm SD	Low Social Media Users (n=100) Mean \pm SD	t-value	Significance
1	Lost much sleep over worry	4.10 \pm 0.85	2.70 \pm 0.70	3.50	P < 0.05
2	Felt constantly under strain	3.95 \pm 0.80	3.05 \pm 0.65	2.90	P < 0.05
3	Could not overcome difficulties	3.60 \pm 0.75	3.00 \pm 0.60	2.10	P < 0.05
4	Feeling unhappy and depressed	3.80 \pm 0.75	2.90 \pm 0.60	3.00	P < 0.05
5	Losing confidence in self	3.60 \pm 0.70	3.10 \pm 0.60	1.85	NS
6	Feeling worthless	3.55 \pm 0.72	3.00 \pm 0.65	1.90	NS

Table 2 depicts the comparison of negative mental health dimensions between high and low social media users. The findings reveal that high social media users experience higher levels of psychological distress.

With respect to **sleep disturbance (loss of sleep over worry)**, high social media users (Mean = 4.10 ± 0.85) reported significantly higher scores than low users (Mean = 2.70 ± 0.70), indicating poorer sleep quality. Similarly, **feeling constantly under strain** was higher among high users (Mean = 3.95 ± 0.80) compared to low users (Mean = 3.05 ± 0.65), suggesting increased stress levels.

In terms of **inability to overcome difficulties**, high users (Mean = 3.60 ± 0.75) scored significantly higher than low users (Mean = 3.00 ± 0.60), reflecting reduced coping ability. Likewise, **feeling unhappy and depressed** was more prevalent among high users (Mean = 3.80 ± 0.75) than low users (Mean = 2.90 ± 0.60).

However, no significant differences were observed in **loss of confidence** and **feeling worthless**, although high users showed slightly higher mean scores in both dimensions.

Overall, the results indicate that **excessive social media usage is significantly associated with higher levels of stress, sleep disturbance, and depressive symptoms**, while some aspects of self-perception may not differ significantly.

IV. DISCUSSION

The present study examined the impact of social media usage on mental health among college students in the Vidarbha region, using the GHQ-12 framework. The findings from Table 1 and Table 2 clearly indicate that **students with lower social media usage demonstrate better positive mental health**, while **high social media users exhibit greater psychological distress**.

The results of Table 1 revealed that low social media users scored significantly higher in positive mental health dimensions such as concentration, decision-making ability, enjoyment of daily activities, and overall happiness. These findings are consistent with the study by Keles, McCrae, and Grealish (2020), which reported that limited social media exposure is associated with better psychological well-being and cognitive functioning. Similarly, Primack et al. (2017) found that reduced time spent on social media platforms enhances real-life engagement and emotional satisfaction, thereby improving mental health outcomes.

One possible explanation for these findings is that excessive social media use reduces attention span and increases cognitive overload, negatively affecting concentration and decision-making. Moreover, students who spend less time online are more likely to engage in physical activities and face-to-face interactions, which are known to enhance emotional stability and life satisfaction.

The findings from Table 2 further indicate that high social media users experience significantly higher levels of sleep disturbance, stress, and depressive symptoms. These results align with previous research by Twenge and Campbell (2018), who found that prolonged screen time is strongly associated with increased risk of depression and poor sleep quality among adolescents and young adults. Additionally, Vannucci, Flannery, and Ohannessian (2017) reported that excessive social media use contributes to anxiety and psychological distress due to constant social comparison and fear of missing out (FOMO).

Interestingly, no significant differences were found in self-confidence and feelings of worthlessness, suggesting that these aspects of mental health may be influenced by broader personality traits or environmental factors rather than social media use alone. This observation is supported by earlier research indicating that self-concept is multifactorial and not solely dependent on digital behavior (Dunn, Trivedi, & O'Neal, 2001).

Overall, the findings of the present study strongly support the growing body of literature indicating that **excessive social media usage has detrimental effects on mental health**, while controlled usage promotes psychological well-being. The study highlights the importance of digital balance and suggests that reducing screen time can significantly improve mental health outcomes among students.

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