

Original Research Article

SOCIAL MEDIA USAGE AMONG MEDICAL STUDENTS IN A TERTIARY CARE HOSPITAL OF AGRA: PREVALENCE, DETERMINANTS AND ASSOCIATION WITH ACADEMIC PERFORMANCE

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ABSTRACT

Background: Social media has changed communication, information dissemination, and social interaction on a global scale. Social media use in medical education is an emerging field providing opportunities for innovation to enhance student learning. While it provides opportunities for learning, and professional development, excessive or inappropriate use may have adverse effects. This study assessed the prevalence and determinants of social media use among medical students and examined its association with gender, sleep duration, and self-reported academic performance.

Materials and Methods: A cross-sectional study was conducted among MBBS students at F.H. Medical College and Hospital, Etmadpur, Agra. Data were collected using a self-administered questionnaire distributed through Google form. Prevalence and determinants of social media use were expressed as percentages. Associations with gender, sleep duration, and self-reported academic performance were assessed using the chi-square test, with p-value < 0.05 taken as statistically significant.

Results: Out of 169 students, 161 (95%) reported using social media. The most common reason for use was connecting with family or friends (79.3%), followed by educational needs (64.5%), sharing news/opinions/personal experiences (43.2%), and coping with stress and anxiety (29.0%). No significant association was observed between social media use and gender ($\chi^2=0.96$, $p>0.05$), sleep duration ($\chi^2=0.51$, $p>0.05$), or self-reported academic performance ($\chi^2=0.09$, $p>0.05$).

Conclusion: Social media use was highly prevalent (93.5%) among medical students mainly for staying connected with family and friends and for educational purposes. However, no significant associations with gender, sleep duration, or academic performance were reported.

Keywords: Social media uses, Prevalence, Determinant, Academic performance, medical students.

INTRODUCTION

Social media has transformed communication, information dissemination, and social interaction on a global scale. Social media platforms can support professional development and advancement when used wisely.^[1] The Internet and Mobile Association of India (IAMAI) reported that there are over 759 million active mobile users in India, of whom 90% use at least one social media platform daily.^[2]

Social media use in medical education is an emerging field providing opportunities for innovation to facilitate and enhance student learning.^[3,4] Social media interaction improves short-term knowledge retention in undergraduate medical students and aids communication between learners and educators. Social media develops bonding between students and faculty, creating virtual communities.^[4] Studies demonstrate that YouTube, Facebook, and Telegram

enhance communication and accessibility for medical students.^[4,6]

Despite these benefits, harmful effects such as social media addiction, poor academic performance, anger issues, eye strain, and sleep disturbances are some of the negative impacts of social media.^[7,8] Social media addiction has been associated with psychological effects such as depression, anxiety.^[9] The above-mentioned studies, however, vary in methodology, coverage, and the parameters examined. Furthermore, not much emphasis has been placed on how intent of use (instructional vs. recreational use), psychological distress, as well as coping, interact in shaping social media use among medical students.

Clarification of these determinants is important in the Indian educational environment, where the medical curriculum is intensive, and multiple sources of stress exist, including academic overload, accommodations for hostel life, and competitive demands. Hence, this research aims to provide new data for educators, policymakers. This study would bridge the gap, enabling health professionals to understand and manage the effects of social media on aspiring medical students' well-being and future direction.

Objectives

1. To estimate the prevalence of social media usage among medical students in F.H. Medical College and Hospital, Etmadpur, Agra
2. To identify the determinants of social media usage among medical students in F.H. Medical College and Hospital, Etmadpur, Agra.
3. To determine the association between gender and social media usage.
4. To determine the association between sleep duration with social media usage.
5. To determine the association between self-reported academic performance with social media usage.

MATERIALS AND METHODS

Type of Study: Cross-sectional

Place of study: F.H. Medical College and Hospital, Etmadpur, Agra.

Inclusion Criteria:

1. Students enrolled in M.B.B.S. program.
2. Students willing to give consent which may be represented by the submission of response.

Exclusion criteria:

1. Incomplete required questions submission (more than 10 %)

Tools for data collection: Self-administered questionnaire through google form. Google forms were distributed on what's app groups of students.

Data management: Microsoft Excel was used for data entry, management, and analysis was done by using online software. The prevalence of social media usage was calculated in the form of percentages and statistical significance was tested using Chi-square test and $p \text{ value} \leq 0.05$ was taken statistically significant.

Ethical issues: Prior approval was obtained from the Institutional Ethical Committee of F.H. Medical College and Hospital, Agra.

RESULTS

In this study the prevalence of social media usage among medical students was found to be 95% (161 out of 169 students), with almost equal participation of males (49.1%) and females (50.9%) as shown in the [Figure 1] below:

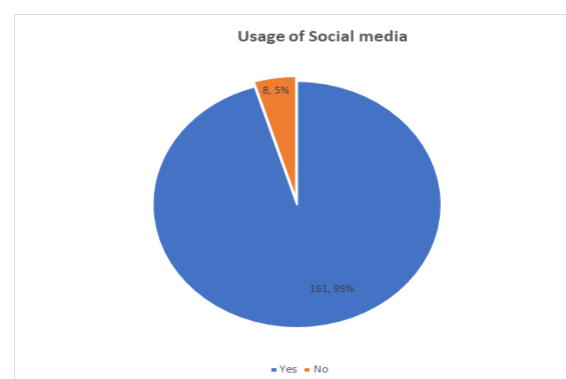


Figure 1: Prevalence of social media usage among medical students

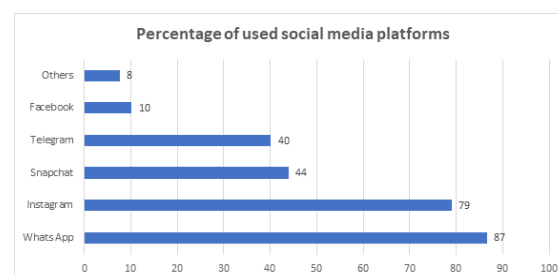


Figure 2: Percentage of used social media platforms

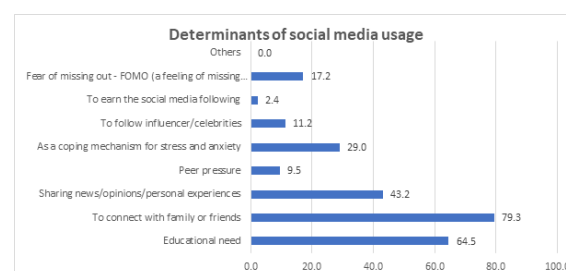


Figure 3: Determinants of social media usage

The most common social media platform used were found to be WhatsApp (87%) followed by Instagram (79%) and Snapchat (44%).

In our study, the most common determinant of social media usage was found to be “To connect with the family or friends” (79.3%) followed by “educational need” (64.5%), “Sharing news/opinions/personal experience” (43.2%) and “As a coping mechanism for stress and anxiety” (29.0%). A smaller number of participants cited “fear of missing out” (17.2%) and “to follow influencer/celebrity” (11.2%) as shown in [Figure 3]

Table 1: Association between gender, sleep duration and academic performance with social media usage

		Social media usage		Chi-square value (p-value)
		Yes	No	
Gender	Male	79	4	0.96 (> 0.05, non-significant)
	Female	82	4	
Sleep duration	More than 8 hours	7	1	0.51(> 0.05, non-significant)
	6 to 8 hours	102	4	
	Less than 6 hours	52	3	
Self-reported academic performance	More than or equal to 70 %	67	1	0.09 (> 0.05, non-significant)
	60 to 69 %	45	5	
	50 to 59 %	42	1	
	Less than 50 %	6	1	

In this study, the association between gender and social media usage, sleep duration and social media usage, self-reported academic performance and social media usage were found to be insignificant (p value > 0.05) as shown in [Table 1].

DISCUSSION

In the present study we found that the prevalence of social media uses among medical students is 95% (161 out of 169 students). According to a study conducted by Alshantiti A et al (2023),^[10] the percentage of social usage among medical students during class room was observed to be 85.5%. Nadia T et al,^[11] (2025) reported prevalence of social media usage social media usage among medical students to be 97.4%. Another study by Singh L et al,^[12] (2025) revealed the prevalence of social media usage to be 98.2 %. The high prevalence rate reported in our study is not unexpected, which is in line with previous study. Slight variation may be due to different operational definitions of social media usage in different studies. High prevalence of social media uses among medical students indicates that social media use has become the integral part of their daily life.

We found in our study most common social media platform used, to be WhatsApp (87%) followed by Instagram (79%) and Snapchat (44%). Nadia T et al,^[11] (2025) observed that the most preferred social media platforms were Instagram (67.3%) followed by Facebook (24.6%) and Snapchat (8.1%) among medical students. Another study by Singh L et al,^[12] (2025) revealed that the most common social media platform used by the medical students was Instagram (46%) in Kanpur, Uttar Pradesh, India.

In our study, the gender distribution among social media users was comparatively balanced, with males 49.1% and females 50.9%. This almost equal distribution suggests that social media use is common among medical students irrespective of gender. Furthermore, no statistically significant association was found between gender and social media usage ($\chi^2 = 0.96$, $p > 0.05$).

The most common determinant for social media use in the present study was connecting with family or friends (79.3%). This finding highlights the role of social media uses among medical students. Medical education involves challenging academic curriculum, long periods distant away from family, and

considerable academic and social pressures. Therefore, social media provide an easy means of maintaining interpersonal affairs and communication with family and friends. A study conducted by Nadia T et al,^[11] (2025) also reported that the primary determinant influencing the social media uses among medical students is personal interests (57.3%). This result is consistent with the studies conducted by Alatawi A et al,^[13] (2024) and Alfaya MA et al,^[14] (2023).

In present study second common determinant was educational need (64.5%) and this indicates that social media is not merely used for entertainment or social interaction. Medical students may use social media to access educational materials also, follow medical educators, participate in academic groups and discuss clinical topics with peers. A study by Greviana N et al,^[15] (2024) on social media use for learning among medical students also highlighted its role in facilitating participation in learning communities and knowledge development. Likewise, Greviana N et al (2024),^[15] Chan TM et al,^[16] (2020) also reported in their study that social media assists students in learning through flexible and timely access to broad range of information.

Therefore, creating social media-based learning strategies could meet student learning need and improve their academic performance.

Approximately 43.2% of participants reported using social media for sharing news, opinions, or personal experiences. This indicates that medical students may use this platform to remain informed about current events, medical developments, and professional issues.

Nevertheless, the dissemination of information through social media also raises concerns regarding the accuracy of information, privacy, professionalism, and confidentiality.

In the present study, 29.0% of students reported using social media as a coping mechanism for stress and anxiety. This finding is particularly relevant in medical students, who frequently experience substantial academic and psychological pressures. The present study observed insignificant statistical association between social media usage and sleep duration ($\chi^2 = 0.51$, $p > 0.05$). Most social media users reported sleeping for 6–8 hours per day. Although social media and smartphone use are frequently discussed as potential contributors to sleep disturbance, the findings of this study suggest that

simply being a social media user was not significantly associated with the broad categories of sleep duration. No statistically significant association was observed between social media usage and self-reported academic performance ($\chi^2 = 0.09$, $p > 0.05$). Most social media users reported self-reported academic performance of $\geq 70\%$, followed by those reporting 60–69% and 50–59%. Thus, despite the very high prevalence of social media use, the present study did not demonstrate a significant relationship between social media usage and self-reported academic performance. In a cross-sectional study conducted by Takieddin S et al,^[17] (2022) found no significant association between academic performance and social media use. In another study by AlFaris E et al (2021),^[18] Alahmar A et al,^[19] (2016) also showed that time spent on social media does not affect their academic performance, while study done by Lahiry S et al (2019),^[20] Alshantqi A et al,^[10] (2023) suggests that use of social media improves their academic performance.^[10] The variation between the findings of different studies may be because of the different eligibility criteria and different tools of measurements used thereby.

This finding may reflect the fact that social media can have both beneficial and potentially detrimental effects on learning. On one hand, extreme recreational use may consume study time and contribute to distraction. On the other hand, social media can provide access to educational content, peer learning, professional communities, and rapid exchange of academic resources.

Strengths and Limitations: The present study has the strength of assessing not only the prevalence of social media use but also several major determinants of usage and its association with gender, sleep duration, and self-reported academic performance. However, the study has several limitations. First, it is a cross-sectional study with relatively small sample size of 169, may have limited the ability to detect smaller associations. Second, sleep duration and academic performance were self-reported and may therefore be affected by reporting bias. Third, the classification of social media usage as simply "yes" or "no" does not stratify the social media usage according to duration, frequency, platform, or purpose. Finally, if participants were recruited from a single institution, the generalizability of the findings to medical students in other institutions or regions may be limited.

CONCLUSION

The study reported a very high prevalence of social media use (95.3%) among medical students, mainly for staying connected with family and friends and for educational purposes. Social media was also used by a large proportion of students to cope with stress and anxiety. However, no significant association was found between social media use and gender, sleep duration, and self-reported academic performance.

Overall, social media appears to be an important part of medical students' social and academic lives, and its impact may depend more on the purpose and pattern of use than on use in itself.

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