

Original Research Article

The prevalence and determinants of social media usage among medical students of Nishtar Medical University, Multan

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ABSTRACT

Background: Social media platforms such as Instagram, Facebook, Snapchat and their usage has a significant prevalence in the medical students. Social media usage affects the quality of life and work of population including medical students, detrimentally affecting their mental health and academic performance.

Methods: A cross-sectional study using non-random convenient sampling technique was conducted from March 5, 2024 to September 14, 2024 among the medical students of Nishtar Medical University, Multan. Data collection was done by a self – developed questionnaire. SPSS-27 was used to analyze data.

Results: Out of 309 participants, 97.4% (301) students reported using social media, while only 2.6% (eight students) indicated that they did not use social media. First year medical students had the Social Media usage rate of 97.5% while the final year students had the highest social media usage rate of 100%. The most preferred social media platforms were Instagram (67.3%), followed by Facebook (24.6%) and Snapchat (8.1%). There was no statistically significant association between gender and prevalence of social media usage ($p=0.183$). Both male and female students showed a similar pattern of usage with 97.7% of males and 96.5% of females being active on social media.

Conclusions: The study reveals that MBBS students, particularly Instagram, frequently use social media for both social and academic purposes. They spend significant time on these platforms daily and while they are essential for social and academic purposes, overuse of these platforms can hinder their learning and participation in extracurricular activities.

Keywords: Medical students, Prevalence, Socialmedia, Usage

INTRODUCTION

The way individuals communicate, share information and interact has fundamentally changed because of social media platforms like Facebook, Instagram, Twitter, SnapChat and Tiktok. According to Statista's 2023 forecast, there are more than 4 billion users of social media globally and young people make up roughly 71% of all internet users.^{1,2} Students use social media a lot, as seen by their daily schedules, extracurricular activities and social contacts. Numerous studies reveal that most

students spend a considerable amount of time on social media.^{3,4}

With major ramifications for their cognitive and socio emotional development, students are depending more and more on these platforms for information, amusement and social validation.^{5,6} Studies have indicated a significant correlation between the use of social networking sites and the perception of isolation among American young adults, highlighting the possible psychological consequences of overuse.⁷ Similarly, a systematic review highlighted the

correlation between social networking sites and mental health issues such as depression and anxiety, emphasizing the importance of comprehending the mental health implications of social media, usage among students.⁸

Individuals addicted to social media often spend excessive amounts of time on these platforms, exhibit obsessive behaviour and experience uncontrollable urges to utilize them.⁹ Globally, media platform addiction has surfaced as a significant community health concern. A recent meta-analysis assessing the prevalence across 32 countries found a pooled incidence of 24%.¹⁰ Consequently, addictive or problematic social media usage can impair users' psychosocial functioning and well-being, leading to symptoms such as depression and anxiety.¹¹⁻¹³

The proliferation of social media usage is evident in its rapid expansion, with the number of users in Pakistan increasing from 7.6 million in 2014 to 29.5 million in 2022.¹⁴ An exploratory study among Chinese college students identified female gender, impulsivity, anxiety, social anxiety and negative attentional biases as risk factors for social media addiction.¹⁵

The excessive utilization of social media is becoming increasingly prevalent among medical students, resulting in academic and psychological instability.¹⁶ In Pakistan, where there are approximately 25 million internet users, platforms like Facebook, Instagram and WhatsApp are particularly popular among this demographic.¹⁷

Objectives

To determine the prevalence of social media usage among medical students. To assess the average duration of daily social media use among medical students. To identify the primary purposes for which medical students use social media (e.g., academic, entertainment, communication, etc.). To explore which social media platforms are most frequently used by medical students. To examine any associations between social media usage patterns and demographic or academic variables (e.g., year of study, gender, academic performance).

METHODS

A cross-sectional study was conducted in a public medical university in Multan from 5 March 2024 to 25 September 2024. Undergraduate MBBS students at Nishtar Medical University who provided informed consent were included in the study. Non-medical students were excluded.

Ethical clearance was obtained in accordance with the Human Rights Declaration, ensuring that every participant's consent was fully informed, conscious and voluntary prior to data collection Ref.No.7089/NMU, Dated:03-06-2024). A non-random, convenience-sampling technique was employed to recruit participants.

Inclusion criteria

All first year to final year MBBS students of NMU, Multan who gave consent were included.

Exclusion criteria

All nursing and allied health sciences students were in exclusion criteria.

Data was collected using a structured questionnaire that focused on the number of hours spent on social networking sites (SNS) and identified the most frequently used SNS platforms. Data analysis was performed with SPSS version 27, utilizing descriptive and inferential statistics along with regression, correlation, factor and cluster analyses.

RESULTS

The study surveyed 309 medical students to assess their social media usage, its prevalence and associated determinants. Their basic details are given in Table 1.

Out of the 309 respondents, 97.4% (301 students) reported using social media, while only eight students (2.6%) indicated they did not use social media. This high prevalence was consistent across all years of study, with slight variations. First-year students had the highest social media usage rate at 97.5%, while final-year students also had a 100% usage rate. (Figure 1). When asked about their regular online activities, 66.3% of students reported using social media as their primary activity.

Other significant activities included educational purposes (15.2%) and streaming videos (7.4%). A small percentage engaged in online shopping (2.6%) and gaming (1.6%). (Figure 2). The most preferred social media platforms were Instagram (67.3%), followed by Facebook (24.6%) and Snapchat (8.1%). Instagram was the dominant platform among all years of study. (Figure 3). A notable proportion of students (39.5%) spent between 2 to 4 hours daily on social media. However, 28.5% also spent more than 4 hours per day. Only 3.7% of students reported using social media for less than 30 minutes daily, while 20.1% spent between 1 to 2 hours (Figure 4).

The primary determinants influencing social media usage among the students were personal interests (57.3%), followed by academic workload (18.1%). A smaller number of students cited fear of missing out (2.9%) and peer pressure (0.3%) and curiosity (12.3%) as influencing factors. The need for social interaction was also a significant determinant, with 9% of respondents selecting it as a reason for their usage (Figure 5).

Among the students, 38.5% reported actively participating in discussions or content related to medical topics on social media. There was no significant gender difference in this participation ($p=0.493$). Additionally,

71.8% of students indicated that they used social media to collaborate with other medical students for academic or research purposes. This was observed across all classes.

A concerning trend was the 72.5% of students who admitted to checking social media during lectures, with no significant difference across the years of study ($p=0.340$). Both male and female students showed a similar pattern of usage, with 97.7% of males and 96.5% of females being active on social media platforms.

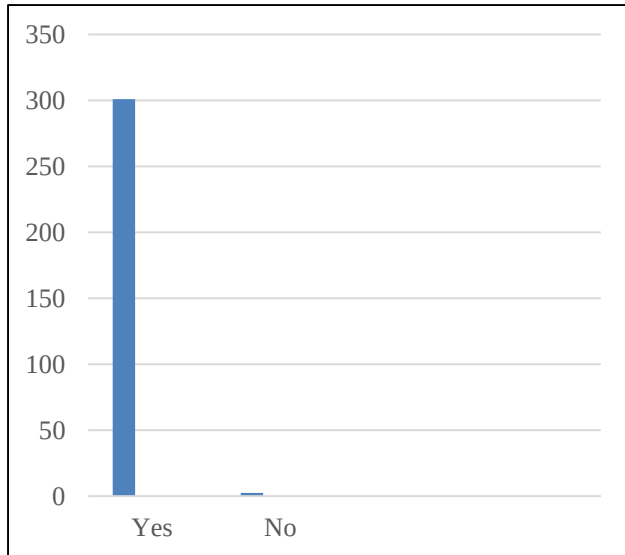


Figure 1: Prevalence of social media usage.

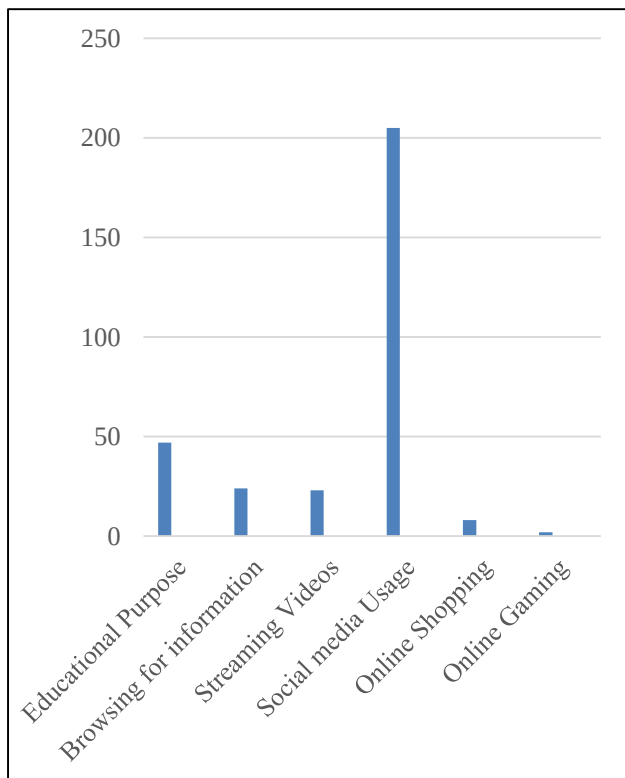


Figure 2: Regular activities on internet.

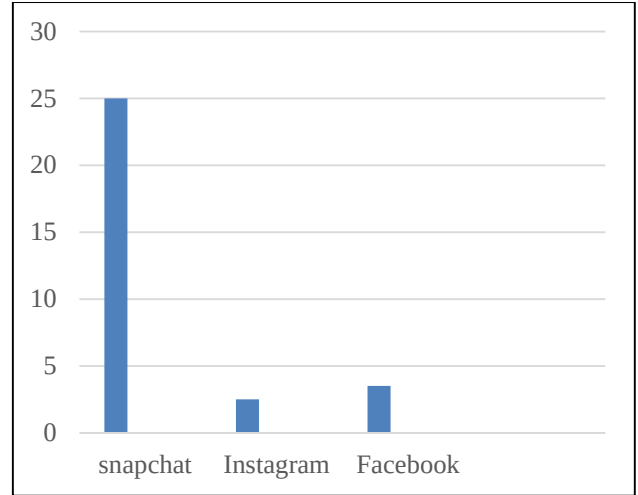


Figure 3: Preference of Social media Platform.

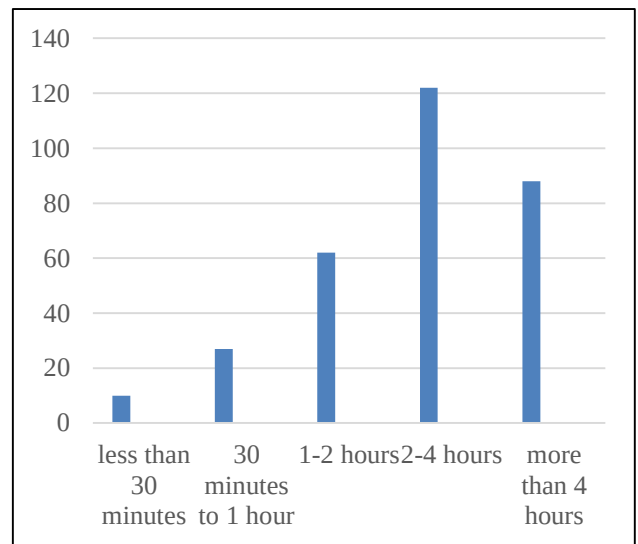


Figure 4: Time spent per day on social media.

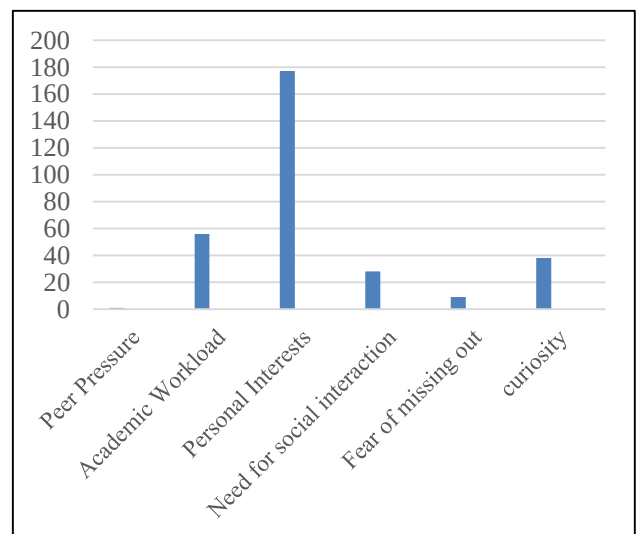


Figure 5: Determinants Influencing social media usage.

In addition, by applying chi-square tests, there is no significant relation found between prevalence of social media and gender and between prevalence of social media and year of study also (Table 2). However, a significant relation is found between Year of Study of respondent and time spent per day on social media (Table 3).

The relation is also significant between Year of Study of respondent and collaboration with other medical students for academic or research purposes (Table 4). In addition, a significant relation is found between the go to device when accessing the internet of respondent and regular activities on internet (Table 5).

Table 1: Basic details of participants.

	N	%
Frequency distribution of gender		
Male	107	34.6
Female	202	65.4
Frequency distribution of age (in years)		
16-19	68	22
20-22	185	59.9
23-26	56	18.1
Frequency distribution of year of study		
1st year MBBS	79	25.6
2nd year MBBS	40	12.9
3rd year MBBS	65	21.0
4th year MBBS	89	28.8
Final year MBBS	36	11.7

Table 2: Chi-square Tests.

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson chi-square	1.776 ^a	1	0.183		
Continuity correction	0.915	1	0.339		
Likelihood ratio	2.090	1	0.148		
Fisher's exact test				0.270	0.171

Table 3: Chi-square tests.

	Value	Do	Asymptotic significance (2-sided)
Pearson chi-square	29.717 ^a	16	0.020
Likelihood ratio	29.525	16	0.021
No. of valid cases	309		

a. 7 cells (28.0%) have expected count less than 5. The minimum expected count is 1.17.

Table 4: Chi-square tests.

	Value	Do	Asymptotic significance (2-sided)
Pearson chi-square	19.821 ^a	4	0.001
Likelihood ratio	20.435	4	0.000
N of valid cases	309		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 13.86.

Table 5: Chi-square tests.

	Value	Do	Asymptotic significance (2-sided)
Pearson chi-square	75.848 ^a	10	0.000
Likelihood ratio	18.540	10	0.047
N of valid cases	309		

a. 13 cells (72.2%) have expected count less than 5. The minimum expected count is 0.01.

DISCUSSION

Social media usage is very abundant among youth. In this study conducted in Nishtar Medical University, Multan, Social media usage frequency is found 97.4%. 67% students are using it for more than 4 years. Among them, Instagram is the most commonly accessed social networking sites. 68% students are spending more than 4 hours on networking in a day. 69.4% students were found using social networking as a source of recreation. 66% students are accessing social media through WiFi network. Most of them use social media for personal interest.

Social media as a source of entertainment also make it prevalent. 50% were found neglecting their daily activities due to socializing online. Our study found that 72.5% students were found checking social media during lectures. According to our study, social media usage is found high among young generation. We found that junior classes are mainly using SNS for academic purposes but that trend changed to social media as a source of entertainment in higher classes. By applying chi square test, finding was significant (p value=0.004).

Likewise Khalid et al, found that the excessive utilization of social media is becoming increasingly prevalent among medical students, resulting in academic and psychological instability with 99.5% prevalence of social media among students.¹⁶ A similar study on the Incidence of WhatsApp addiction among medical students was carried out by Rajini et al, the increasing concern surrounding social media addiction. The prevalence of WhatsApp addiction among medical students was 51%.¹⁸ Similarly, Mousavi et al, documented a high frequency of 99.4% and usage pattern of social media among Sari Iran medical students.¹⁹

There are a number of factors that have been found to influence how medical students use social media. Among the demographic characteristics linked to Internet use are age, gender and marital status. Guan and Subrahmanyum, for instance, discovered that young people are quickly engrossing themselves in online life.²⁰ Similar to this, Valant et al, found that in 2016, 97.5% young adults in US have substantial access to social media and digital technologies.²¹ In a similar way, Javadinia et al, discovered that social networks can influence students' academic success.²² Marzo et al, Found that More than 90% of people in Austria, Georgia, Myanmar, Nigeria and the Philippines were active on social media. Most social media users were between the ages of 18 and 24.²³

However, the present study has some limitations. First off, the cross-sectional design of this study precludes any inference regarding the causal association between internet addiction and related variables. The results of this study cannot be generalized as only a sample of students from one college in Pakistan were included. Another

factor which limits its generalization is study duration because prevalence may vary during their exams season.

CONCLUSION

The study shows that social media usage is almost universal among medical students, with Instagram being the most popular platform. Students spend a significant amount of time on social media daily, driven mainly by personal interests and peer pressure. Social media also serves as a key tool for academic collaboration, though its frequent use during lectures raises concerns about its impact on academic focus. While social media is vital for both social and academic purposes, there is a need to address its overuse to ensure it does not hinder students' learning.

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Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

- Dixon SJ. Number of social media users worldwide from 2017 to 2023: Statista. 2023. Available at: <https://www.statista.com>. Accessed on 21 January 2025.
- Masthi NR, Pruthvi S, Phaneendra M. A comparative study on social media usage and health status among students studying in pre-university colleges of urban Bengaluru. Indian J Comm Med. 2018;43(3):180-4.
- Junco R. Engaging students through social media: Evidence-based practices for use in student affairs: John Wiley & Sons. 2014.
- Rideout V, Robb MB. Social media, social life: Teens reveal their experiences. San Francisco, CA: Common Sense Media. 2018.
- Kirschner PA, Karpinski AC. Facebook® and academic performance. Computers in Hum Behav. 2010;26(6):1237-45.
- Vannucci A, Flannery KM, Ohannessian CM. Social media use and anxiety in emerging adults. J Affect Disord. 2017; 207:163.
- Primack BA, Shensa A, Sidani JE, Waite EO, Yi Lin L, Rosen D, et al. Social media use and perceived social isolation among young adults in the US. Am J Prev Med. 2017; 53(1):15-8.
- Seabrook EM, Kern ML, Rickard NS. Social networking sites, depression and anxiety: a systematic review. JMIR. 2016;3(4):5842.
- Schou Andreassen C, Pallesen S. Social network site addiction-an overview. Current Pharm Design. 2014;20(25):4053-61.
- Cheng C, Lau Y-c, Chan L, Luk JW. Prevalence of social media addiction across 32 nations: Meta-analysis with subgroup analysis of classification schemes and cultural values. Addictive behaviors. 2021;117:106845.

11. Hussain Z, Griffiths MD. The associations between problematic social networking site use and sleep quality, attention-deficit hyperactivity disorder, depression, anxiety and stress. *Int J Mental Health Add.* 2021; 19(3):686-700.
12. Ponnusamy S, Iranmanesh M, Foroughi B, Hyun SS. Drivers and outcomes of Instagram Addiction: Psychological well-being as moderator. *Comp Hum Behav.* 2020;107:106294.
13. Lin LY, Sedan JE, Shensa A, Radovic A, Miller E, Colditz JB, et al. Association between social media use and depression among US young adults. *Dep Anx.* 2016;33(4):323-31.
14. Kemp S. Digital Pakistan: Data Reportal – Global Digital Insights. 2022. Available at: <https://datareportal.com>. Accessed on 21 December 2024.
15. Team GR. Saudi Arabia Social Media Statistics 2024: Global Media Insight; 2024. Available at: <https://www.globalmediainsight.com>. Accessed on 12 January 2025.
16. Zhao J, Jia T, Wang X, Xiao Y, Wu X. Risk factors associated with social media addiction: An exploratory study. *Fronti Psychol.* 2022;3:837766.
17. Khalid SKS, Aslam MS, Muzzamil ZMZ, Ahmar FAF, Javaid AJA, Shafique SSS, et al. Prevalence of social media websites used by medical students. *J Akhtar Saeed Med Dental College.* 2022;4(3):656.
18. Rajini S, Kannan K, Alli P. Study on prevalence of whatsapp addiction among medical students in a private medical college, Pondicherry. *Indian J Pub Health Res Dev.* 2018;9(7):113-6.
19. Mousavi J, Shekofteh P, Amanolahi A. Frequency and Pattern of Social Network Use in Medical Students, Sari, Iran. *J Mazandaran University Med Sci.* 2019;29(172):146-52.
20. Guan S-SA, Subrahmanyam K. Youth Internet use: risks and opportunities. *Current Opi Psych.* 2009;22(4):351-6.
21. Villanti AC, Johnson AL, Ilakkuvan V, Jacobs MA, Graham AL, Rath JM. Social media use and access to digital technology in US young adults in 2016. *J Med Int Res.* 2017;19(6):196.
22. Javadinia SA, Erfanian M, Abedini M, Bijari B. The Effects of Social Networks on Academic Achievement of Students, a Study in Birjand University of Medical Sciences. *Iranian J Med Edu.* 2012;12(8):657.
23. Marzo RR, Jun Chen HW, Ahmad A, Thew HZ, Choy JS, Ng CH, et al. The evolving role of social media in enhancing quality of life: a global perspective across 10 countries. *Arch Pub Heal.* 2024;82(1):28.

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