A CROSS-SECTIONAL STUDY ON ASSESSMENT OF SOCIAL MEDIA USAGE AMONG MEDICAL STUDENTS IN KANPUR UTTAR PRADESH

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ABSTRACT

Introduction: Social media refers to the means of interactions among people in which they create, share, and exchange information and ideas in virtual communities and networks**.**

Aim and objectives:1. To estimate the prevalence of social media usage among medical students. 2.To study the association between different variables and social media usage.

Methodology: A cross sectional analytical study involving 169 MBBS students of Naraina Medical College, Kanpur, Uttar Pradesh completed in Three months duration.

Results: A significant proportion (98.2%) of students use social media, with Instagram (46.2%) and YouTube (33.7%). A large number of students spend between 1-2 hours daily on social media, and over 80% use it for academic purposes.The majority of students (40%) post photos, followed by memes or reels (26.6%), and videos (22.8%). Educational content makes up a smaller portion of the posts (10.60%), . However, 78.1% of students believe social media can be addictive, and its impact on academic performance is mixed, with 49.7% reporting no effect.

Conclusion: Social media plays a critical role in students' academic and social lives, understanding its effects on well-being and academic performance remains crucial. The high rate of its usage suggests that social media can be a valuable educational resource, but its potential distractions and impact on students' mental health also warrant further investigation

Keywords: Assessment, Social Media, Usage, Medical Students, educational resources

INTRODUCTION

In recent years, social media has rapidly transformed from a platform for casual interaction to a fundamental aspect of daily life, especially for younger populations. Medical students, in particular, represent a significant portion of social media users. They utilize various platforms not only for social interaction but also for academic purposes, networking, and professional development.

Social media, including, Instagram, Twitter, Wikipedia, Facebook, Pinterest, YouTube, WhatsApp, Snapchat, etc., provides an opportunity for educators to engage undergraduate students who are the members of the millennial generation in active learning while enhancing knowledge and fostering communication(1).According to Crook et al., the web-based communities for learning has four key

advantages: 1) it enables collaboration among different users,2) it allows users to create personal content through different forms of media, 3) it permits users to publish individual works, and 4) it creates new approaches to research. (1)

AIM AND OBJECTIVES
1.To estimate the prevalence of social media usage among medical students.
2.To study various factors related to social media usage.
3.To study the association between different variables and social media usage.
4.To study the knowledge ,attitude and practice of medical students towards social media usage.

MATERIAL AND METHODS
Study design:A cross sectional analytical study.
Study setting:Naraina Medical College Hospital and Research Centre,Gangaganj,Panki,Kanpur.
Study period:20th December2024,to 20thMarch 2025(threemonths)
Study population:Students of Naraina Medical College,Kanpur
Sample size:According to a previous study done by Kadriye etal in 2015 Assessment of medical students' attitudes on social media use in medicine: a cross-sectional study.(2)
Prevalence P=93.4% is taken
By applying formulaN= z^2pq/d^2
Where p=93.4
Q=6.6
D=4%(absolute precision)
N=$(1.96)^2$X93.4X6.6/4^2

N=154
Adding 10% non response our sample size came out to be 169.

Sampling method: simple random sampling technique by generating random number table in MS Excel.
Inclusion criteria:Regular students ofNaraina Medical College, Kanpur
Exclusion Criteria: Those who were not willing.
Data collection: A semi-structured online questionnaire, pretested for clarity and relevance, developed to collect data. Google forms were distributed on whats app groups of students of different years.Data regarding their sociodemographic condition, and information regarding social media usage was collected.
Data Analysis: Data collected was entered into Microsoft Excel. Data analysis was done by using the software Jamovi(2.4.8)The prevalenceofsocial media usage waspresentedintheformoffrequenciesand percentages.Most ofthevariablesinthisstudywere categoricalsostatisticalsignificance was testedusing Chi-squaretestandpvalue(pvalue≤0.05isstatisticallysignificant, and>0.05notsignificant)
Ethical approval: Ethical approval was duly obtained from the ethics committee of Naraina Medical College before commencing the study. Informed written consent was obtained from all participants before their inclusion in the study, ensuring their voluntary participation and confidentiality of responses.
Consent: Informed written consent added in their google forms was obtained from all participants before their inclusion in the study.

RESULTS
In this study the majority of respondents (73.4%) are aged between 21-23 years, with nearly equal representation of males (52.7%) and females (47.3%). The largest proportion of students are in their third year of study (47.9%), second year consists of 28.4%and 23.7% belong to first year.(table 1)
A significant proportion (98.2%) of students use social media, with Instagram (46.2%) and YouTube (33.7%) being the most popular platforms,reason might be entertainment, self-expression and self

presentation. A large number of students spend between 1-2 hours daily on social media, and over 80% use it for academic purposes.The majority of students (40%) post photos, followed by memes or reels (26.6%), and videos (22.8%). Educational content makes up a smaller portion of the posts (10.6%), indicating that most content shared is focused on entertainment and personal expression rather than academic or educational purposes.. However, 78.1% of students believe social media can be addictive, and its impact on academic performance is mixed, with 50% reporting no effect.(table 2)

The association between social media usage and various sociodemographic variables is shown in this study .The chi-square test results reveal statistically significant associations for duration of social media usage per daymaximum is 1-2 hour(36.1%)(p = 0.004) frequency of checking notifications maximum is multiple times a day(64.5%)(p = 0.011), and frequency of posting contentis rarely(57.3%) (p 0.001). No significant associations were found between social media usage and variables such as age, gender, year of study, indicating that these factors do not significantly influence whether a student uses social media. The content posted maximally is photos (p=0.020) which is a significant association.(table3)

TABLE 1: DEMOGRAPHIC PROFILE OF STUDY SUBJECTS(N=169)

VARIABLE	CATEGORY	NUMBER	PERCENTAGE
AGE GROUP	18-20 YEARS	22	13.0
	21-23	124	73.4
	24-26	23	13.6
GENDER	MALE	89	52.7
	FEMALE	80	47.3
YEAR OF STUDY	FIRST YEAR	40	23.7
	SECOND YEAR	48	28.4
	THIRD YEAR	81	47.9

Table 2: VARIABLES REGARDING SOCIAL MEDIA USAGE IN STUDY PARTICIPANTS(N=169)

VARIABLE	CATEGORY	NUMBER	PERCENTAGE
USAGE OF SOCIAL MEDIA	YES	166	98.2
	NO	3	1.8
SOCIAL MEDIA USED MOSTLY PER DAY	FACEBOOK	2	1.1
	INSTAGRAM	78	46.2
	SNAPCHAT	2	1.2
	TELEGRAM	1	0.6
	TWITTER	3	1.8
	WHATSAPP	26	15.4
	YOUTUBE	57	33.7
HOURS SPENT ON SOCIAL MEDIA	LESS THAN 1 HOUR	4	2.4
	1-2 HOUR	61	36.1
	2-3 HOUR	53	31.4

	3-4 HOUR	33	19.5
	MORE THAN 4 HOUR	18	10.7
PRIMARY REASON OF USING SOCIAL MEDIA	CONNECTING WITH FRIENDS AND FAMILY	40	23.7
	FOR ENTERTAINMENT	85	50.3
	FOR PROFESSIONAL PURPOSE	13	7.7
	FOR ACADEMIC PURPOSE	17	10.1
	NEWS AND CURRENT EVENTS	12	7.1
	OTHER	2	1.2
FREQUENCY OF POSTING CONTENT IN SOCIAL MEDIA	DAILY	15	8.9
	MONTHLY	25	14.8
	WEEKLY	10	5.9
	TWICE A WEEK	3	1.8
	RARELY	97	57.4
	NEVER	19	11.2
CONTENT POSTED MAXIMALLY	VIDEOS	38	22.8
	MEMES/REELS/HUMOR	45	26.60
	EDUCATIONAL CONTENT	18	10.60
	PHOTOS	68	40
FREQUENCY OF CHECKING SOCIAL MEDIA NOTIFICATION	MULTIPLE TIMES A DAY	109	64.5
	ONCE A DAY	29	17.2
	FEW TIMES A WEEK	17	10.1
	RARELY	10	5.9
	NEVER	4	2.4
USAGE OF SOCIAL MEDIA FOR ACADEMIC PURPOSES	YES	137	81.1
	NO	32	18.9
SOCIAL MEDIA IMPACT ON ACADEMIC PERFORMANCE	NEGATIVE	32	18.9
	POSITIVE	53	31.4

	NO IMPACT	84	49.7	
DO YOU BELIEVE SOCIAL MEDIA USAGE IS ADDICTIVE	YES	132	78.1	
	NO	24	14.2	
	NOT SURE	13	7.7	

TABLE3:ASSOCIATION OF SOCIAL MEDIA USAGE AND SOCIODEMOGRAPHIC VARIABLES(N=169)

VARIABLE	CATEGORY	SOCIAL MEDIA USAGE		CHI SQUARE VALUE	P VALUE
		YES	NO		
AGE	18-20	22	0	1.11	0.575
	21-23	121	3		
	24-26	23	0		
GENDER	MALE	87	2	0.240	0.624
	FEMALE	79	1		
YEAR OF STUDY	IST YEAR	40	0		
	2ND YEAR	46	2	2.43	0.296
	3RD YEAR	80	1		
SOCIAL MEDIA APPS USED PER DAY	FACEBOOK	2	0		
	INSTAGRAM	78	0		
	SNAPCHAT	2	0	3.18	0.786
	TELEGRAM	1	0		
	TWITTER	3	0		
	WHATS APP	25	1		
	YOU TUBE	55	2		
DURATION PER DAY	LESS THAN ONE HOUR	3	1		
	1-2 HOUR	61	0	15.6	*0.004
	2-3 HOURS	51	2		
	3-4 HOURS	33	0		
	>4 HOURS	18	0		
AFFECT ON ACADEMIC PERFORMANCE	NEGATIVE	32	O		
	POSITIVE	51	2	1.96	0.376
	NO IMPACT	83	1		

FREQUENCY OF CHECKING APP NOTIFICATION	MULTIPLE TIMES A DAY	109	0	12.4	*0.014
	ONCE A DAY	28	1		
	A FEW TIMES/WEEK	15	2		
	RARELY/DAY	10	0		
	NEVER	4	0		
FRQUENCY OF POSTING CONTENT ON SOCIAL MEDIA	DAILY	14	1	20.5	*0.001
	MONTHLY	25	0		
	WEEKLY	10	0		
	TWICE A WEEK	2	1		
	RARELY	96	1		
	NEVER	19	0		
CONTENT POSTED MAXIMALLY	MEMES/REELS/HUMOR	45	0	9.88	*0.020
	PHOTOS	68	0		
	EDUCATIONAL CONTENT	16	2		
	VIDEOS	37	1		

*P VALUE <0.05 is significant

Knowledge of social media usage:

All the students of various faculties have knowledge about social networking platforms,their liking of social media apps is different :facebook(1.1%),Instagram(46.2%),you tube (33.7%),whatsapp (15.4%),snapchat(1.2%),telegram(0.6%)twitter (1.8%).
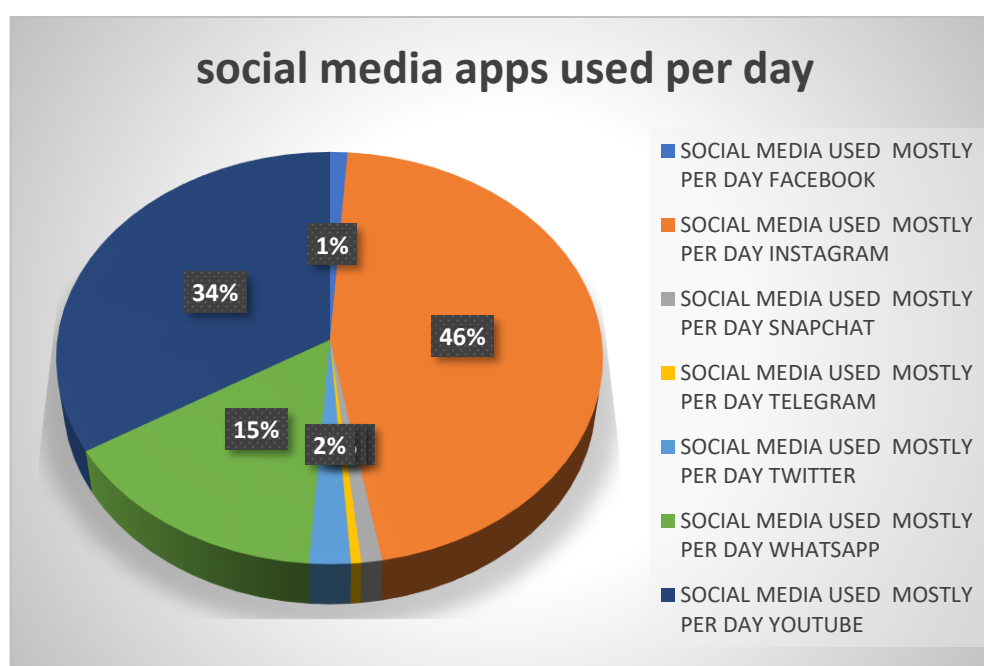
Figure1: distribution of percentage of social media apps used daily

A significant proportion of students (80.9%) use social media for academic purposes. However, when it comes to the impact on academic performance, half of the students (49.7%) reported no impact, while 31.4% noted a positive effect, and 18.9% indicated a negative effect. Additionally, 78.1% of students believe that social media usage can be addictive, highlighting potential concerns regarding overuse and dependency.
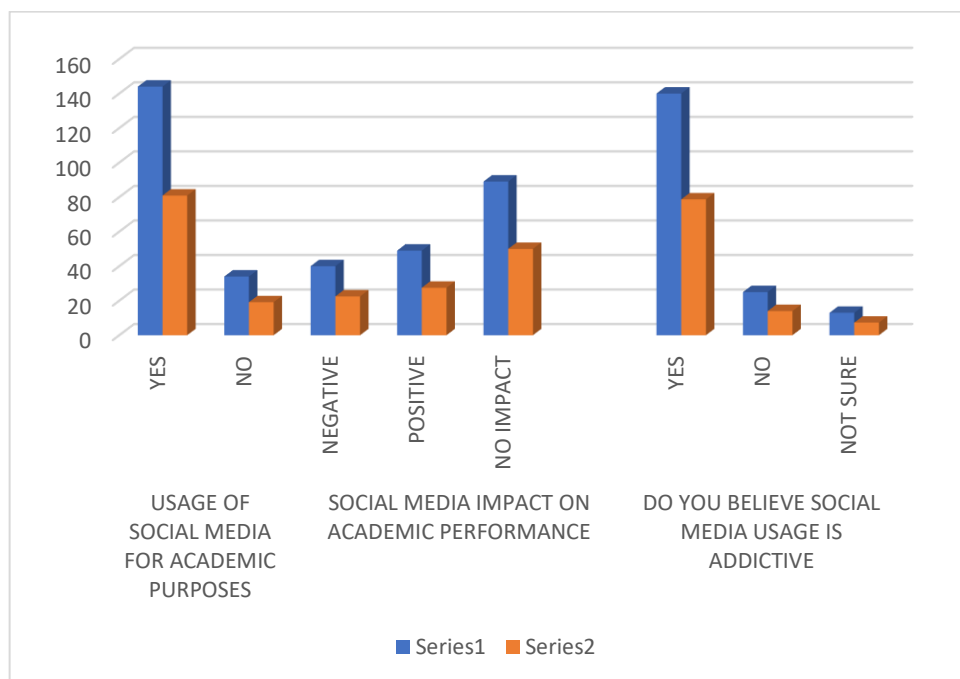

Figure 2: knowledge about social media usage(N=169)

Attitude about social media usage: 81.1% of students use social media for academic purposes, only 31.4% feel it positively affects their academic performance, while half report no impact. Interestingly, 78.1% of students believe that social media is addictive, highlighting concerns about over-reliance on these platforms despite the mixed perceptions regarding its academic value.

Practice about social media usage:
Most students (36.1%) spend between 1-2 hours daily on social media, with entertainment being the primary reason for usage (50.3%). A significant portion (57.4%) rarely posts content, but the majority (64.5%) check notifications multiple times a day, suggesting passive engagement. These trends reflect high engagement with social media, largely for recreational and social purposes.
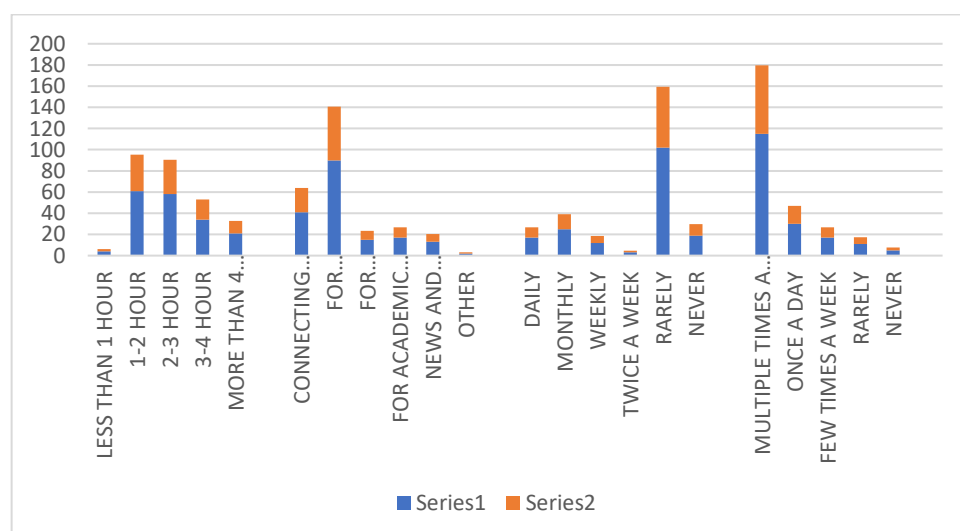
DISCUSSION

In the current study we found that prevalence of social media usage in university students is 98.2% while in a study done by **Kadriye Avcı etal** it is 93.4% which is quite similar to our study(2).The mostly used App by students in our study is Instagram (46.2%), followed by youtube (33.7%),whatsapp(15.4%),twitter(1.8%),snapchat(2%),telegram(0.6%)while in a study by **Chaitali etal** the maximum used app was WhatsApp 96.18% (353), followed by Instagram 74.38% (273), followed by YouTube 61.8% (227), followed by Facebook 4.63% (17) and others 33.24% (122) which included Snapchat and Twitter(3).In this study the duration of usage of social media is maximally 1-2 hours while in another study by **Sumbal Khalid etal** Thirty-eight-point-three percent (38.3%) of students spent less than 1 hour on Facebook. 23.4% of students spent more than 4 hours on Facebook. About 17%, 12.2 %, 4.7 %, and 4.2% of students spend 1 hour, 2 hours, 3 hours, and 4 hours on Facebook respectively. It showed that most of the students spent less than 1 hour on Facebook.(4)in this study 78.1% students believe that social media is addictive while in a study done by**Ramesh Masthi etal** Social media addiction was found in over one-thirds (36.9%)of subjects and majority had mild addiction.(5)

CONCLUSION

Social media usage was fairly balanced across genders, and a significant portion (81.1%) of students reported using it for academic purposes. However, the perceived impact of social media on academic performance was mixed, with 50% of students stating it had no impact, 31.4% indicating a positive effect, and 18.9% noting a negative effect.

The study also revealed that students primarily use social media for entertainment (50.3%), and a large majority (64.5%) check their notifications multiple times a day, suggesting high engagement. While the time spent on social media varied, 36.1% of students spent between 1 to 2 hours daily on these platforms. Additionally, 78.1% of participants believed social media to be addictive.

The findings underscore the need for a balanced approach to social media usage, particularly in academic contexts, as excessive use may have a negative impact on performance, despite its widespread use for academic purposes. Future interventions should focus on promoting healthy usage patterns and mitigating potential negative effects of overuse.

RECOMMENDATIONS:

1.**Regulate Social Media Engagement During Class Hours:** Implementing policies that restrict social media use during lectures or study hours, except for academic purposes, can help minimize distractions and enhance students' focus on their studies.

2. **Encourage Academic Utilization of Social Media:** Since 81.1% of students use social media for academic purposes, educational institutions can leverage this trend by creating academic-focused groups, forums, and platforms. Faculty members can integrate social media into the learning process by sharing resources, holding discussions, and encouraging collaboration.

Limitations

Self-Reported Data: The study relied on self-reported information, which is subject to bias, including overestimation or underestimation of social media usage and its impact on academic performance. Students might not always provide accurate data regarding their habits.

Cross-Sectional Design: As a cross-sectional study, it captures data at a single point in time, which limits the ability to assess long-term trends or changes in social media usage patterns and their potential cumulative effects on academic performance.

Conflict of interest: No conflict of interest associated with this study.

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