

# Cross Sectional Study on Academic and Health Impact of Social Media Usage in Medical Students of Hyderabad Telangana

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## Abstract

Social media is a way of electronic communication through which people share their ideas, knowledge and information. Social media users are increasing worldwide. Medical students are also extensively using various social media platforms for academic and non academic purposes. A cross sectional study on impact of social media in academics of medical students of Hyderabad, Telangana was conducted in a medical college of Hyderabad. 200 Medical students participated in the study. Socio demographic and academic details including their usage of social media was collected in the form a pre structured questionnaire, the information obtained from each participant was taken in to MS excel sheet and the data was analyzed with SPSS software. Study results reveal majority of students are using social media for fun and entertainment and academic usage is very minimal. Students are spending more hours at late night causing ill effects to their physical and mental health. We also found social media hampering their effective study hours. Students are frequently absent to classes, distraction in the class room and poor performance in their academics was observed among extensive users in the study group. Males are predominant among extensive users and academic impact also observed more in male participants. Students from highly educated and financially sound families are extensive users of social media. Similar results were found in other studies.

**Key words:** Social media, Medical students.

## Introduction

Social media is a digital technology that allows the sharing of ideas, knowledge and information which include text and visuals with various communities

through virtual network. More than 3.48 billion people around the world use social media. In India 310 million people approximately 23% of Indian population using social media<sup>1</sup>. Social media is often referred to as a lifeline for socializing among youth.

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The most commonly used social media platforms are Facebook, YouTube, WhatsApp, Instagram, Telegram, Snap chat and LinkedIn. Social media started out as a way to interact with people through network. Social media also used as a platform to share their knowledge, information and talents in virtual world.

Social media users are classified<sup>2</sup> based on the role played and the level of involvement as listeners, activists, spammers, social butterflies, trolls, influencers, and early adopters. Social media enhances medical education by facilitating medical students to acquire information on diseases, treatment and research. Students can have access to academic lectures, virtual CME's and conferences through social media. It enhances competitive spirit among medical students by participation in various quiz and academic activities.

Sedentary behavior particularly sitting long time increases the risk of cardiovascular disease, type 2 diabetes, obesity and poorer mental health status. Study on impact of increasing social media use on sitting time and body mass index<sup>3</sup> shows the rise in social media use may have a negative impact on health.

Social Media Role and Its Impact on Public Health: A Narrative Review by Sushim Kanchan<sup>4</sup>, study result showed that social media promotes various health promotion like awareness of menstrual hygiene, breastfeeding techniques and adherence, self-perception and promotion of oral health, significant use of antibiotics, consistency with exercise, sexual health promotion, road safety awareness, smoking cessation, adverse drug reaction etc.

Social media is a double edged sword, it has to be used carefully and ethically any amount of misuse attract legal penalty. According to information technology act 2000, Section 66(a) any offence which is committed via social media to hurt or cause injury to others attract punishment 3 years of imprisonment. Section 69(a) says that the government has all rights to stop or ban the public access to information which is inconsistent with provision to the government.

The aim of the study is to explain social media impact on medical students with objectives to know the various social media platforms used and to assess

their academic performance among male and female medical students. This study will be use ful to identify the reasons of its misuse and helps to take various preventive measures.

## Material and Methods

A cross sectional and prospective study on impact of social media on academics of medical students of Hyderabad, Telangana was conducted in a medical college of Hyderabad. Study was conducted among medical students of 1<sup>st</sup> year MBBS to final year MBBS, from 1<sup>st</sup> October 2023 to 31<sup>st</sup> March 2024 for a period of six months. A total of 200 Medical students, 100 male and 100 female medical students participated in the study. An informed consent was obtained from each participant before commencement of the study and the names were kept anonymous. Students who are using various social media platforms and willing to participate in the study were included, non users and unwilling to participate in the study are excluded.

The following details regarding social, demographic, academics and their usage of social media were collected in the form of a pre structured questionnaire.

1. Gender (Male/ female). Residence; (Day scholar/hostler). Locality: (Urban / Rural)
2. Personnel habits: ( Smoking/ Alcohol/ Substance abuse/ Nil )
3. Year of study of MBBS: ( 1<sup>st</sup> yr/ 2<sup>nd</sup>yr/ 3<sup>rd</sup> part-1/ 3<sup>rd</sup> part-2 )
4. Education background of parents (up to SSC / Intermediate/ degree/ professional)
5. Occupation - Father (self employed/ government employee/agriculture)
  - a. Mother (Homemaker/ Government employee/ Private employee)
6. Family income: (High/ Moderate/ low (Modified Kuppaswamy classification)
7. Siblings: Education (Up to SSC / Intermediate / degree / PG or Professional) and
  - a. Social media usage: (extensive user>8 hrs / moderate user>4 hrs /isolator <2hrs)
8. Time spent on social media (Number of hours) and preferable time of the day using social Media (Morning / Afternoon / evening / Night)

9. Most commonly used social media platforms(Face book/ YouTube/ WhatsApp/ Instagram/ Telegram/ Snap chat/ LinkedIn)
10. Type of content commonly referred (academic/non academic) and do you use social media For (Knowledge & Information/ Financial gain/ Entertainment/ Chatting).
11. Academic impact: Attendance: (excellent->90% / good >75% /poor <75%).
12. Concentration in the class: (excellent/moderate/poor).
13. Performance in last attended exam: (excellent >70% / Good 60-70% / Average 50-60%/ Below average <50%) and effect on reading: (Yes/ No).
14. Impact of social media on physical health: (Sleep disturbance / Obesity/ any other.
15. Impact of social media on mental health: (Stress/ anxiety/ depression/ addiction/ any other mental disorder.
16. How do you interact with people: (Direct interaction in person/ through social media)
17. Whom do you interact with people on social media: (Friend/ Family members/ stranger)
18. Social media impact on your social life: (Yes/ No)
19. Is your family aware of your social media usage: (Yes/ No)

The collected data was taken into an MS excel sheet and statistically analyzed with SPSS software.

## Results

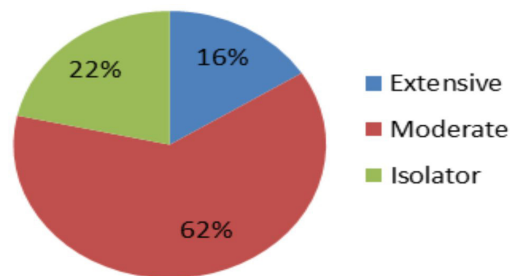
A cross sectional study on impact of social media on academics of medical students of Hyderabad, Telangana was conducted among medical students of Hyderabad Telangana, 200 Medical students were participated in the study in which 100 males and 100 females. The following results were found in our study.

**Table 1: Showing the socio demographic, social media usage and academic details.**

S No	Variable	Results	S No	Variable	Results
1	Residing at	Day scholer-75% Hostler - 25%	12	Time spent on social media	Up to 1 hr - 4.5% 2-4hr - 47% 4-8hrs - 35.5% >8hrs - 12.5%
2	Personal Habits	Smoking - 2% Alcohol - 4% Both - 5.5% Nil - 88.5%	13	Time of the day on social media	Morning - 0.5% Afternoon - 4% Evening - 39% Night - 26.5% Multiple time - 30%
3	Year of Study	1 <sup>st</sup> MBBS - 25% 2 <sup>nd</sup> MBBS - 26.5% 3 <sup>rd</sup> MBBS - 25% 4 <sup>th</sup> MBBS - 23.5%	14	Type of content commonly referred	Academic - 13.5% Non Academic - 86.5%
4	Education of Father	Up to SSC - 8% Intermediate 10.5% Degree - 33.5% Professional - 47% Uneducated - 1%	15	Academic attendance	Good- 86% Poor - 14%

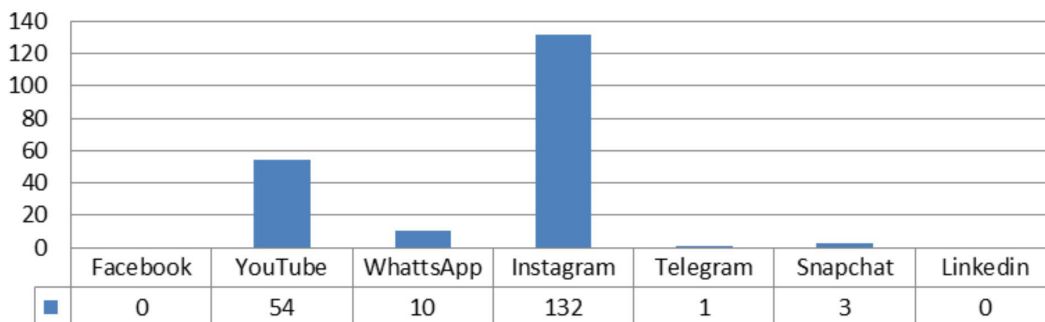
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5	Education of Mother	Up to SSC - 15.5% Intermediate - 8.5% Degree - 36.5% Professional - 37% Uneducated - 2.5%	16	Concentration in class	Good - 83% Poor - 17%
6	Occupation of Father	Self employed -72.5% Government employee - 21% Private / Agriculture - 6.5%	17	Effect on reading	Yes - 70% No - 30 %
7	Occupation of Mother	Homemaker - 60.5% Government employee -15% Other - 24.5%	18	Impact on physical health	Sleep disturbance - 49.5% Obesity - 6.5%
9	Family Income	High - 24% Moderate - 70.5% Low - 5.5%	19	How do you interact with people	Direct - 56.5% Social media - 43.5%
10	Whom do you interact in social media	Friends - 52% Family - 2.5% Strangers - 2 % Multiple - 43.5%	20	Impact on social life	Yes - 52.5% NO - 47.5%
11	Sibling education	Up to ssc - 8.5% Intermediate - 17.5% Degree - 39.5% Professional-23% No siblings-11.5%	21	Do your family aware of your social media sage	Yes - 92% No - 8%



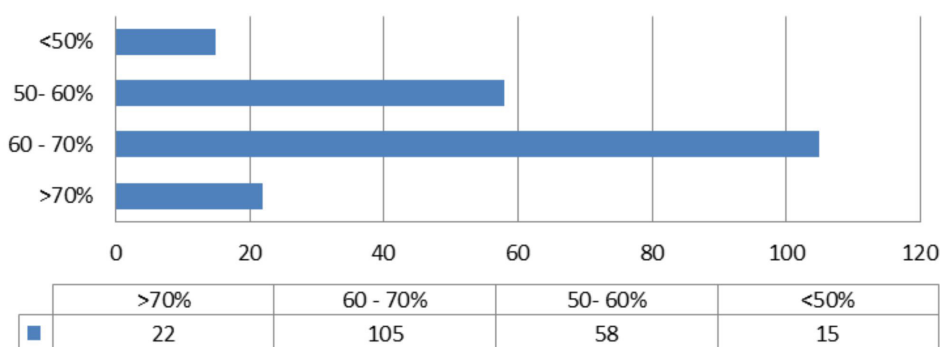
**Figure 1: Showing details of social media usage in the study group.**

Moderate users (2 - 8 hrs in a day) are 62% in the study population, extensive users (> 8 hrs in a day) are 16% and Isolators (<2 hrs in a day) are 22% in the study group.



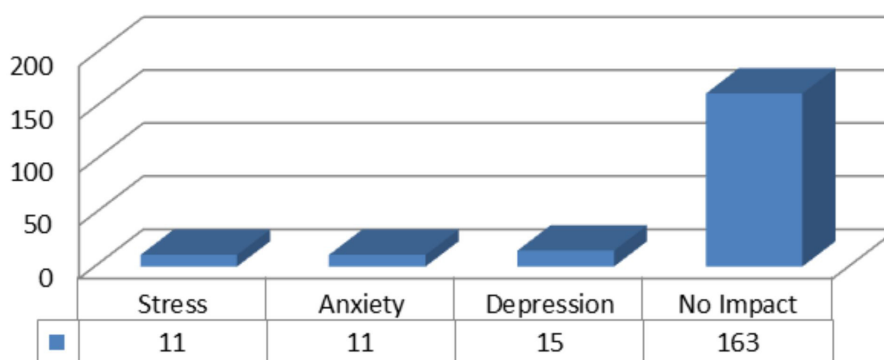
**Figure 2: Reveal most commonly used social media platform in the study group.**

Instagram users are predominant in the study population 66% followed by YouTube 27%, WhatsApp 5%, Snap chat and Telegram is the least among.



**Figure 3: Showing the details of academic performance of social media users.**

Academic performance in the last exam, only 11% achieved >70%, 52.5% scored average and 36.5% study population got <60% results.



**Figure 4: Reveals the impact on mental health among the users in the study group.**

81.5% study population had no impact of social media usage where as 18.5% are suffering from various mental health issues.

**Discussion**

A cross sectional study on impact of social media in academics of medical students was conducted in Hyderabad Telangana. 200 students participated in

the study in which 25% students are residing in the hostel and 75% are day scholars in the study group. Majority students 90% were come from an urban area and 10% are from rural area. Study group consist of 25% first MBBS, 26.5% 2<sup>nd</sup> MBBS, 25% 3<sup>rd</sup> MBBS part one and 23.5% are from 3<sup>rd</sup> MBBS part two.

Personnel habits in the study group shows 11.5% are smokers and alcoholics. Majority of study

population are from good educational background. Education of father reveals 47% are Professionals, 33.5% graduation and 18.5% are intermediate education. Education of mother shows 37% professionals, 36.57 graduates and 24% belong to intermediate education. Very less number of study group have come from illiterate family. In regard to occupation of father 72.5% are self employed, 21% government service and 6.5% are from Private and agriculture. Mother occupation shows 60.5% are home makers, 24.5% private employees and 15% are from government services. Family income reveals 24% are from high income group, 70.5% are from moderate income and only 5.5% from low income group (According to modified Kuppaswamy classification). Siblings of study group are 100 % educated and 78.5% are high to moderate users of social media. Majority of study group are from well educated and good family income, easy affordable to electronic gadgets and internet usage.

Social media usage in study population shows 83% are moderate users, 12.5% are using extensively more than 8 hrs in a day and least are isolators using less than 2 hour in a day, among extensive users males are predominant. Preferable time of social media usage among study group reveals that majority are using in evening hours 39% and late night after 10pm are 56.5% and remaining 4.5% are using social media in morning and afternoon. Most commonly used social media among study group was Instagram 66%, YouTube 27% followed by WhatsApp 5%, Snap chat 1.5% and 0.5% telegram, similar results found in male and female study population. 86.5% in the study group are using for fun and entertainment, only 13.5% users are for academic purpose, academic usage was more in female study group. Majority of the students after attending their college spent their valuable time at evening and night hour in social media usage.

Regarding Academics in the study population we found 86% are maintaining good attendance. 83% in the study group are attentive in the class room and remaining 17% are distracting by social media usage in the class room. Social media affecting on regular reading in 70% of study group remaining 30% are not affected. Academic performance in the last exam found that 11% are excellent, 81.5% are average

and 7.5% are poor, females are better in academic performance.

Effect on health due to social media, we found 49.5% have sleep disorder, 6.5% are suffering with obesity. Regarding mental health 18% are suffering from stress, anxiety and depression related disorders. We found 16.5% of study population addicted to social media. Social media impact on social life of study population reveal 52.5%, the effect is less in female study group. We found 43.5% of study population prefers to interact in social media and remaining prefers direct interaction, compared to females, males are interacting more in social media. 4% in study group chat with strangers in social media platforms among which majority observed in males. Family is aware of their social media usage in 92% of study population.

Regarding impact of social media usage in medical students, a study was conducted by Ajay M Bhandarkar<sup>5</sup> at Manipal, Karnataka found that WhatsApp & YouTube are the most widely used applications among medical students and also explained that highest social media users are low in their academics whereas in our study majority preferred Instagram and YouTube and results on academic impact is similar.

A study by Jayant deshpane<sup>6</sup> on effect of internet & social media use among medical students of tertiary care teaching hospital at Maharashtra revealed that excessive use of social media have impact on physical and mental health, similar results were found in our study. Another study by Manikant tripati<sup>7</sup> on Effect of Social Media on Human Health, found mental illness disorders like decreased self-esteem, eating disorders, anxiety, feelings of inferiority and declined focus in work, we also found mental illness among excess users.

## Conclusion

Social media impact in medical students, results reveal majority of students are using social media for fun and entertainment, academic usage is very minimal. Students are spending their precious time especially in late night causes ill effects on their physical and mental health. We also found social media causing impact on their effective study hours. Absent to classes, distraction in the class room and

poor performance in their academics was observed in the study group. Students from higher education and financially sound family background are extensive users. Compared to males females are less among extensive users and good in academics. Similar results were found in other studies.

**Conflict of interest: Nil.**

**Source of funds: Self.**

**Ethical clearance:** Ethical clearance was obtained from Institutional ethics committee, vide reference no; MRIMS/DHR-IEC-MBBS-UG/2023/130, dated 29-9-2023.

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