

Original Research Article

Social media and mental health of undergraduate medical students of Mysuru: cross sectional study

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ABSTRACT

Background: Social media is a form of electronic communication, through which people can share ideas and information. With the advent of internet and social networking sites, humans have become social more virtually than in person. This has led to people living more isolated lives affecting one's health. Hence the objective is to assess the effects of social media on students and factors associated.

Methods: It was a Cross sectional study among 367 undergraduates from a medical college in Mysuru, over a duration of 2 months. A self-administered questionnaire with socio- demographic variables and a standard GHQ-12 (general health questionnaire) was used for the scoring of their distress levels. Descriptive statistics were taken and Chi-square test was done for statistical significance.

Results: Out of 367 students, the mean age of students were 21.5 years. The prevalence suggestive of distress was found to be 72.4% (265), and severe psychological distress was found to be 3.27%. Among usage of apps, people using 1 app had 48.5% distress, 2 apps had 75.6% distress, 3 apps had 63.3% distress and 4 apps 74.2% distress. There was no significant association between factors and severity of distress.

Conclusions: From the above study, we have shown that social media with all its influence has a negative impact on the students' behavior. With this the youth need to be educated on its use and its limitations counselled regarding its ill effects and necessary tolls for seeking help be made available at their disposal.

Keywords: Distress, Medical students, Mental health, Social media

INTRODUCTION

Merriam Webster describes social media as “forms of electronic communication such as websites for social networking and micro blogging through which users create online communities to share information, ideas, personal messages, and other content. In the recent times social media has had a sporadic improvement in terms of quality, consumption and quantity. Consumers of social media have made online social communication as an essential part of their daily lives, manifested by increasing number of daily users. In fact, Facebook alone reported an estimated 1 billion active users on 27 august 2015,

implying 1 in 7 people on earth used Facebook in a single day.¹⁻³

With the advent of internet and social networking sites, humans have become social more virtually than in person. This has lead to people living more isolated lives affecting one's health and overall quality of life. Social media influences a person to behave a certain way, so as to be favourable for the society and bring about certain implications. Increased usage of social networking in the present era is a matter of concern among parents, society as well as researchers as it has shown its effect both positively and negatively on the mental health of the users. Majority of the day in the life of a younger

generation is consumed by excessive use of social media web sites. These include sites which allow interaction through web 2.0 and 3.0 sites including sites like Facebook, Twitter, MySpace, online gaming, YouTube etc. Their usage has expanded exponentially as they act as viable portals of entertainment.⁴⁻⁶

Mental health is characterised as a state of well-being in which people are aware of their capacities, successfully navigate through daily challenges, perform well at work, and significantly improve the quality of life in their communities. The advantages and drawbacks of social media for mental health are currently being discussed. Social networking is a key component of mental health protection. Mental health, health behaviour, physical health, and mortality risk are all influenced by the quantity and quality of social contacts. Social media's link to mental health may be explained by the displaced behaviour theory. Numerous studies on the effects of social media have been undertaken, and it has been found that frequent usage of sites like Facebook may be linked to negative symptoms and indicators of depression, anxiety, and stress. Social media can also put a lot of pressure on users to project the stereotype that others want to see and to gain as much popularity as possible.⁷⁻⁹

Social media has an immense influence on the day to day activities in the present era ranging from communication, health, marketing, politics education etc. Taking in consideration all the positivity and the influence we can get through social media, a keen eye needs to be placed on the damages and long term side effects of it for the human behaviour.¹⁰ The objective of this research was to assess the effect of social media on the mental health of individuals and see factors associated with it.

METHODS

Study area

A cross-sectional study conducted in MBBS students from first, second, third and fourth year and interns for two months in 367 students.

Inclusion criteria

Undergraduate medical students and interns, willing to give consent.

Exclusion criteria

Those who are not willing to give consent and those who are not using social media.

Method of collection of data

This cross-sectional study was conducted among 367 undergraduate students of MBBS and interns course for a period of two months from February 1st to March 31st,

2023. A sample size of 367 was calculated using the formula $n = z^2PQ/L^2$ by considering the prevalence of usage of more than 2 social media 50.5% from the study conducted by Lisa et al with an absolute allowable error of 5% and $z = 1.96$ (95% level of confidence).⁸ Participants were selected from first-year, second-year, third-year, fourth-year MBBS students and interns by simple random sampling method.

Data was collected using a self-administered questionnaire. The questionnaire contain details of socio-demographic profile and mental health status was assessed by general health questionnaire-12. The GHQ is a 12 item questionnaire based on four point Likert Scale designed by Goldberg.⁹ After all the questions are answered, numbers for each response was added to obtain a final score which suggests the level of psychological distress.

The severity of psychological distress is graded as 0-12 points: normal range 13-20 points: suggesting evidence of mental distress >20 points: severe problems with psychological distress.

The test covers the degree to which the social media use affects daily routine, social life, productivity, sleeping patterns and feelings.

Data analysis

Data were entered into MS excel and analysed SPSS Version 26.0 (IBM Corp. Released 2019. IBM SPSS Statistics for Windows, Version 26.0. Armonk, NY: IBM Corp). Frequencies and percentages were calculated for all the categorical variables. Chi square test was done to analyse the association between the socio-demographic factors and GHQ score.

RESULTS

Around 367 students participated in the study. Out of 367 students 39.07% (143) were females and 60.93% (223) were males. The mean age of students were 21.5 years with a standard deviation of 2.5. Undergraduate medical students of first year 10.93% (40%), second year 35.52% (130), third year 11.75% (43), and fourth year 14.75% (54), interns 24.86% (91) participated in the study (Table 1).

Among the study population, the prevalence suggestive of distress was found to be 72.4% (265), and severe psychological distress was found to be 3.27% (12) while 14.7% were found to be normal (Table 2).

Among the participants, those using 1 app shows individuals lying in the normal range to be 17 (51.5%) in number and those with distress to be 16 (48.5%) in number, those using 2 apps are 27 (24.3%) and 84 (75.6%) respectively, those using 3 apps are 51 (36.7%) and 88 (63.3%) respectively, those using 4 apps are 17

(25.8%) and 49 (74.2%) respectively, and those using 5 apps are 5 (33.3%) and 10 (66.6%) respectively (Table 3).

Table 1: Socio-demographic characteristics of participants.

Characteristics		Number	Percentage
Age (years)	18-20	272	74.32
	21-23	53	14.48
	>25	7	1.91
Gender	Female	143	39.07
	Male	223	60.93
Year of study	First	40	10.93
	Second	130	35.52
	Third	43	11.75
	Fourth	54	14.75
	Intern	91	24.86

Table 2: GHQ-12 scores among participants.

Categories	Number	Percentage
Normal	53	14.40
Evidence of distress	265	72.21
Severe psychological distress	12	3.30

Table 3: Number of apps in use and the prevalence of distress among participants.

Number of apps used	Total no. participants using	No. of participants normal (%)	No. of participants with evidence of distress (%)	No. of participants with severe psychological distress (%)
1 app	33	17 (51.5)	16 (48.5)	0
2 app	111	27 (24.3)	79 (71.1)	5 (4.5)
3 app	139	51 (36.7)	83 (59.7)	5 (3.6)
4 app	66	17 (25.8)	47 (71.2)	2 (3)
5 app	15	5 (33.3)	10 (66.6)	0

Table 4: Types of social media in use among the participants.

Social media apps	Number of participants	Percentage
YouTube	227	61.85
Facebook	17	4.63
Instagram	273	74.38
WhatsApp	353	96.18
Others	122	33.24

Table 5: Association between socio demographic variables and GHQ categories.

Variables		Classification			Chi square	P value
		No	Little	Severe		
Age (years)	18-20	100	186	6	8.14	0.0862
	21-23	16	34	3		
	>24	2	19	1		
Gender	Male	79	139	6	2.57	0.2764
	Female	39	100	4		
Year of study	1st	13	28	0	7.63	0.4699
	2nd	42	87	2		
	3rd	12	31	3		
	4th	22	31	1		
	Intern	29	62	4		
Apps	YouTube	78	151	10	7.96	0.7879

Continued.

Variables		Classification			Chi square	P value
used everyday	Facebook	9	33	1	5.8	0.0549
	Instagram	84	184	8		
	Whatsapp	110	233	10		
	Snapchat	7	27	0		
	Twitter	3	7	0		
	Others	14	23	1		
YouTube	Yes	78	151	10	2.94	0.2291
	No	40	88	0		
Facebook	Yes	9	33	1	1.55	0.4601
	No	109	206	9		
Instagram	Yes	84	184	8	0.43	0.1146
	No	34	55	2		
Whatsapp	Yes	110	233	10	3.7	0.448
	No	8	6	0		
Others	Snapchat	7	27	0	5.92	0.2
	Twitter	3	7	0		
	Others	14	23	1		
Duration	<3 hrs	111	216	8	5.92	0.2
	3-6hrs	6	23	2		
	>6hrs	1	0	0		

There is no significant association between the socio-demographic factors, social media apps usage and the severity of distress among the participants (Table 4 and 5).

DISCUSSION

In the current study explored the effects of social media on the mental health of undergraduate students of medical college and interns of Mysuru. Among the study participants, the prevalence of distress was found to be 72.4% and that of severe psychological distress was 3.27% while people with no evidence of distress 14.4%, implying the negative impact of social media on the study population. The results found in this study are similar to the findings of distress in a cross sectional study conducted by Alexey et al among college students in the United States.³

The current study also found that among the participants, WhatsApp was used maximally 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 while according to the “Global social media statistics research summary 2023 conducted by Dave Chaffey shows Facebook to be the most popular and used app, followed by YouTube, WhatsApp and Instagram.¹⁰

The limitation of the study here is the small sample size used and the limited diversity of the participants taken here as it was taken from a certain geographic area. The other limitation is the mode of data collection, which is the self-administered online mode. It can lead to recall bias from the participants, with face to face interview being the much more preferred way for data collection.

CONCLUSION

Effort of this study is to establish and explore the effects of social media on the mental health youth, which showed to have negatively impacted majority of the participants. The current study shows that there is a considerable percentage of participants either showing evidence of distress or severe psychological distress ranging from 48.5% among those who use 1 app to and 66.6% among those who use 5 apps. No doubt that the easy accessibility to internet has had tremendous benefits and has made life easier in the modern world, but the excessive use of social networking among the young especially at a crucial phase in their lives which considerably decided their future is a call for concern. While keeping in mind the benefits that come with the use of social media, the youth need to be educated on its use and its limitations counselled regarding its ill effects and necessary tolls for seeking help be made available at their disposal.

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