Study to assess the effects of social networking sites on medical college students

Madhusudan Madaiah*, Chaluvaraj Talkad Seshaiyengar, Preethi Suresh, Santhosh Munipapanna, Suresha Doddasabbenahalli Sonnappa

Department of Community Medicine, MVJ Medical College and Research Hospital, Bangalore, Karnataka, India

Received: 03 March 2016
Accepted: 06 April 2016

*Correspondence:
Dr. Madhusudan Madaiah, E-mail: madhugowda001@gmail.com

ABSTRACT

Background: Online social networks are rapidly changing the way human beings interact. Beside its huge advantages it has now become a hot topic of debate that either it is a useful invention or an invention with full of hazards. Hence this study was undertaken to assess effect of social networking sites (SNS) especially on medical college students.

Method: A cross sectional study was done on the medical college students of MVJ Medical College & Research Hospital over a period of 3 months (June 2015 -August 2015) consisting of 408 students. Pre-tested semi structured self-administered questionnaire was used for collection of data regarding usage and pattern of social networking sites and their effects. The data was analyzed using SPSS software for windows version 21.0.

Results: The study comprised of 408 students, 274 (67.2%) were females and 174 (32.8%) were males. Majority of participants were using SNS daily (67.2%), commonly used SNS are Whatsapp (87.7%) followed by Facebook (81.4%). Major activity done is chatting (77.9%) followed by uploading photos (41.9%), 24.5% lack other activities, 28.4% get irritated and 23.5% reported mood swings by using SNS. Mostly participants complain about headache (27%) and eye sight problem (29.9%) due to excessive usage of SNS. Most of the student complains of poor academic performance as an effect of SNS (39.7%).

Conclusion: SNS surely has their advantages but in the present generation the disadvantages outweighs them especially in medical college students.

Keywords: Social networking, Facebook, Whatsapp, Medical students

INTRODUCTION

Social networking began in 1978 with the bulletin board system (BBS). The first version of instant messaging came about in 1988 with Internet Relay Chat (IRC). The first meaningful social network site is SixDegrees.com, it was launched in 1997.¹ SNS can be defined as web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system.² Online social networks are rapidly changing the way human beings interact. SNS deeply penetrate its user’s everyday life and now it has become a medium for change and expression in every aspect of life.³ Social media helps to make a society that values frequent communication more than meaningful communication. Beside its huge advantages it has now become a hot topic of debate that either it is a useful invention or an invention with full of hazards. Most of the users don’t realize the negative impact of social media on their life because they are already addicted to it.³ The benefits of using SNS includes: it create room for creativity among individuals, encouraging greater social interaction via electronic mediums, it provides greater access to information and
information sources, it give individuals a sense of belonging among users of the same SNS, reduces barriers to group interaction and communications such as distance and social/economic status, and increasing the technological competency levels of frequent users of social media. The negative aspects include reduced learning and research capabilities, multitasking, reduction in real human contact, reduction in communication skills, reduced command over language due to usage of shortened forms, jargons, slangs, and dependence on computer grammar and spell check features, wastage of time which could otherwise be utilized for studies, loss of motivation due to dependence on virtual environment instead of gaining practical knowledge from real world. 

This study was undertaken as there is not much information regarding the effect of SNS especially on medical college students. The study is mainly focused towards understanding the effects of social networking sites (such as Facebook, Whatsapp, Google+, Twitter, Chat on, We chat, LinkedIn etc) on social interactions, behavior, studies and health.

METHODS

It is a cross sectional study done on the medical college students of MVJMC & RH (1st year to interns) present during study period. The study was conducted over a period of 3 months (from June 2015 - August 2015). All the medical college students of MVJMC and RH present during the study process were taken as study participants. Informed verbal consent was obtained before the collection of data for the study participants. Pre-tested semi structured self-administered questionnaire was used for collection of data regarding usage and pattern of social networking sites and their effects. Three repeated visits were carried out to cover all the medical college students. Approximately 450 questionnaires were distributed to the participants, out of which 42 were rejected due to incomplete answers, yielding 408 usable responses with an approximately 90% response rate.

Study tool was designed with the help of Department of Community Medicine, MVJMC & RH. A group of medical students were initially approached with open ended questions; output was then incorporated with a thorough review of literature in order to design the best possible questionnaire. Based on the topic 33 questions proforma was made and divided into 2 sections. Section A assessed the basic demographic characteristic of the students (age, sex, class and where they stay). It also assessed the qualification of their parents. Section B consists of questions that assess the need for SNS and their effects. Q1-4 assesses the sites commonly used, Q5-8 assesses the need for SNS and how it has affected their relationships in real and virtual world. Q9 gives input on the age when the social networking use was initiated. Q10-14 assesses the activities done on social sites, relationship with the opposite gender and how addicting the SNS are to the students. Q15-19 assesses the mental effects of SNS on the students such as mood swings, use of jargons, slangs, logos, irritation and depression. Q20 analyzes the ill effects of prolonged use of SNS such as headache, eye pain, backache, sleeplessness etc. Q21-23 assesses the effects of SNS on academics, if any efforts were made to reduce social networking usage during exams. Q24-25 was asked to know if the student feels lonely in spite of having 100s of friends online and if there were any depressive symptoms based on others lifestyle. Q26 was regarding the future plan of using SNS.

Analysis

Data was entered in computer using Microsoft Excel software. Data was analyzed using SPSS (Statistical package for the social sciences) software. Descriptive statistics formed the basis of the statistical analysis. Frequency and percentages were evaluated for categorical variables. Mean and standard deviation used for continuous data.

RESULTS

Demographics

A total of 408 questionnaire was correctly filled (response rate 90%). Participants were in the age group of 18–28 years with a mean age of 20.45 years. Majority (N=274, 67.2%) consisted of females. Majority of the students belonged to literate family (97%).

Table 1: Demographic profile of study group (n= 408).

| Demographic characteristic | Frequency | Percentage |
|----------------------------|-----------|------------|
| Sex                        |           |            |
| Male                       | 134       | 32.8       |
| Female                     | 274       | 67.2       |
| Year                       |           |            |
| I                          | 123       | 30.1       |
| II                         | 118       | 28.9       |
| III                        | 53        | 13.0       |
| IV                         | 70        | 17.2       |
| Intern                     | 44        | 10.8       |
| Residence                  |           |            |
| Home                       | 186       | 45.6       |
| Hostel                     | 173       | 42.4       |
| Outside                    | 49        | 12.0       |
| Mother’s education         |           |            |
| Postgraduate               | 120       | 29.4       |
| Graduate                   | 148       | 36.3       |
| PUC & below                | 125       | 30.6       |
| Illiterate                 | 15        | 3.7        |
| Father’s education         |           |            |
| Postgraduate               | 182       | 44.6       |
| Graduate                   | 146       | 35.8       |
| PUC & below                | 67        | 16.4       |
| Illiterate                 | 13        | 3.2        |
Usage of SNS

Majority of participants were using SNS daily (N = 274, 67.2%); they were using it for around 1-2 hours (N = 105, 25.7%) and (N= 9, 2.2%) do not use SNS.

The most commonly used SNS are Whatsapp (87.7%) followed by Facebook (81.4).

Majority of the students access SNS through their phones (67.9%).

Table 2: Effect of social networking sites on social aspects of study group (N= 408).

| Questions                      | Response | Frequency | Percentage |
|--------------------------------|----------|-----------|------------|
| **Frequency of usage of SNS**  |          |           |            |
| Daily                          |          | 274       | 67.2       |
| 2-4 times/week                 |          | 87        | 21.3       |
| Once week                      |          | 38        | 9.3        |
| Do not use                     |          | 9         | 2.2        |
| **Hours of usage per day**     |          |           |            |
| <30 min                        |          | 259       | 63.5       |
| 1-2 hour                       |          | 105       | 25.7       |
| 2-4 hour                       |          | 27        | 6.6        |
| >4hours                        |          | 16        | 3.9        |
| **Reason for using SNS**       |          |           |            |
| Remain in contact              |          | 275       | 67.4       |
| Spend time                     |          | 255       | 62.5       |
| Education                      |          | 190       | 46.6       |
| Just for fun                   |          | 122       | 29.9       |
| Make new friends               |          | 27        | 6.6        |
| Dating                         |          | 11        | 2.7        |
| Others                         |          | 6         | 1.5        |
| **Affecting Social life**      |          |           |            |
| Yes                            |          | 84        | 20.6       |
| Decreased                      |          |           |            |
| Yes                            |          | 39        | 9.6        |
| Increased                      |          | 285       | 69.9       |
| No                             |          | 315       | 77.2       |
| Online friends stranger in real life | | | |
| Yes                            |          | 93        | 22.8       |
| No                             |          | 315       | 77.2       |
| Rating online friends          |          |           |            |
| Very intimate                  |          | 4         | 1.0        |
| Good friend                    |          | 24        | 5.9        |
| Fairly                         |          | 17        | 4.2        |
| Average                        |          | 48        | 12.5       |
| None                           |          | 315       | 76.5       |
| Friends of opposite sex        |          |           |            |
| Real life                      |          | 254       | 62.3       |
| Social network                 |          | 154       | 37.7       |

Reason for using SNS

Mostly participants use SNS for keeping in contact with friends and family (N = 275, 67.4%), while (N = 255, 62.5%) people had the reason of spending time. (N=190, 46.6%) use it for education purpose.

Table 3: Effect of social networking sites on behaviour of study group (N= 408).

| Questions                      | Response | Frequency | Percentage |
|--------------------------------|----------|-----------|------------|
| **Activities done in SNS**     |          |           |            |
| Chatting                       |          | 318       | 77.9       |
| Upload photos                  |          | 171       | 41.9       |
| Playing games                  |          | 136       | 33.3       |
| Access other’s profile         |          | 60        | 14.7       |
| Make new friends               |          | 58        | 14.2       |
| Create groups                  |          | 40        | 9.8        |
| Other                          |          | 35        | 8.6        |
| **Preference to talk**         |          |           |            |
| Media                          |          | 27        | 6.6        |
| Directly                       |          | 202       | 49.5       |
| Both                           |          | 143       | 35.0       |
| Don’t converse                 |          | 36        | 8.8        |
| **Frequency of late night usage of SNS** | | | |
| Every day                      |          | 103       | 25.2       |
| 3-5 times/week                 |          | 53        | 13.0       |
| Once/twice week                |          | 137       | 33.6       |
| Never                          |          | 115       | 28.1       |
| **Difficult to spend day without using SNS** | | | |
| Yes                            |          | 128       | 31.4       |
| No                             |          | 280       | 68.6       |
| **Messages/images that were disturbing in nature** | | | |
| Received ignored               |          | 316       | 77.5       |
| Sent regretted                 |          | 11        | 2.7        |
| Received worried               |          | 35        | 8.6        |
| Sent personal motive           |          | 16        | 3.9        |
| No                             |          | 30        | 7.3        |
| **Lack other activities**      |          |           |            |
| Yes                            |          | 100       | 24.5       |
| No                             |          | 308       | 75.5       |
| **Irritated**                  |          |           |            |
| Yes                            |          | 116       | 28.4       |
| No                             |          | 292       | 71.6       |
| **Mood swings**                |          |           |            |
| Yes                            |          | 96        | 23.5       |
| No                             |          | 312       | 76.5       |
| **Feel lonely**                |          |           |            |
| Yes                            |          | 93        | 22.8       |
| No                             |          | 315       | 77.2       |
| **Depressed**                  |          |           |            |
| Yes                            |          | 80        | 19.6       |
| No                             |          | 328       | 80.4       |
**Table 4: Effect of SNS on studies of study group.**

| Questions                        | Response    | Frequency | Percentage |
|----------------------------------|-------------|-----------|------------|
| **Academic performance**         | Yes decreased | 162       | 39.7       |
|                                  | Yes improved | 44        | 10.8       |
|                                  | Not affected | 202       | 49.5       |
| **SNS used during exam time**    | Yes         | 192       | 47.1       |
|                                  | No          | 216       | 52.9       |
| **SNS usage during class hours** | Yes         | 188       | 46.1       |
|                                  | No          | 220       | 53.9       |

**Effects of using SNS**

Majority of students admitted that their social life has remained the same despite the use of SNS (N= 285, 69.9%), while few considered that their social life became worse after SNS (N = 84, 20.6%).

Majority of participants were clearly rejected the fact that they feel lonely in spite of many online friends (N= 315, 77.2%).

More than 50% students did not feel it hard to pass a day without using SNS (N= 280, 68.6%).

Few students complained of mood swings associated with the usage of SNS (N= 96, 23.5%).

More than 75% of the students have received disturbing images/ messages and they have ignored them (N=316, 77.5%).

**Health effects**

Mostly participants complain about headache (27%) and eye sight problem (29.9%) due to excessive usage of computer and mobile devices for operating SNS.

After start using SNS, almost 20% of students complain of sleeplelessness while 10% of students complain of backache due to improper posture.

**Effect on studies**

Almost 40% of the student complains of poor academic performance as an effect of SNS (N=162, 39.7) while 50% of the students find it to have no effect on academics (N=202, 49.5).

**DISCUSSION**

SNS has revolutionized the way people interact within a relatively short span. SNS usage has accelerated in such a way that they are considered a global consumer phenomenon. This article elucidates the behavioral, health and psychological effect on medical students. SNS has become an indispensable tool for social, capital and communication with large number of people particularly attractive to young adults 18-28 years of age group and people in the beginning of their educational and professional career who wants to develop their professional identity.

Principle finding is that mostly people use SNS on daily basis (67%) which is higher than the other study conducted. 5 Around 25.7% students were using Social networking sites for 1-2 hours per day whereas in the study done by El-Badawy6 around 33% students were using social media for 1-3 hours a day. The major activity done on social media is chatting through text messages which constitutes around 78% and is higher than the output obtained from other studies.7,8 Around 3% of students regretted sending messages/ images that were disturbing in nature which is significantly lower than results obtained in other study.9 Our study highlighted that almost 40% of the students complained decrease in their score which was much higher than previous studies conducted.9,10 Data from our study suggested around 4% of students use SNS for more than 4 hours per day which is much lower than other study 11 while the students using SNS for less than 30 minutes per day is significantly higher in our study compared to others.3,11 Around 10% students claim that there is an increase in their social life after the onset of SNS which is lower compared to other study.3 More than 30% of the users claim that it is difficult to spend a day without using SNS which is similar to the results produced in other study.3 another principle finding of the study was, almost 20% of users suffer from depression which is higher than what other studies revealed.12 About 23% of users in our study suffered from mood swings which are more than 3 times lower than what other study showed.3 Addiction to SNS is one of the major complain of young generation but when asked about addiction mostly denies about around 20% claim that SNS has ruined their social life and now they spend less time with their loved ones and this results was higher than the data collected from the other study 11 which was only around 5.3%.

**CONCLUSION**

This study focuses on the effect of social networking site on medical college students on their social interactions, behaviour, studies and health. Majority of the student’s access SNS on daily basis and the most common activity done is chatting and uploading photos. Most of the students feel that SNS has affected their social life and have mood swings and depression. Students are also affected health wise where more than half students consider having eye pain and headache.

SNS surely has their advantages but in the present generation the disadvantages outweighs them especially in medical college students.
ACKNOWLEDGEMENT

The authors offer their sincere thanks to the students of MVJ Medical College for being a part of this study and the Management of Medical College for giving permission for this study.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Walker M. The history of social networking. Available at: http://www.webmasterview.com/2011/08/social-networking-history. Accessed 24 January 2016.
2. Boyd DM, Ellison NB. Social networking sites: definition, history and scholarship. J Comput Mediat Commun. 2007;13(1):210-30.
3. Farooqi H, Patel H, Aslam HM, Ansari HQ, Khan M, Iqbal N et al. Effect of facebook on life of medical university students. Int Arch Med. 2013;6:40.
4. Napoleon E. The effect of social networking sites on students' academic performance in girne american university, North Cyprus. Available at: https://www.academia.edu/6139772/The_Effect_of_Social_Networking_Sites_on_Students. Accessed on 24 January 2016.
5. Kuss DJ, Griffiths MD. Online social networking and addiction - a review of the psychological literature. Int J Environ Res Public Health. 2011; 8(9):3528-52.
6. El-Badawy T, Hashem Y. The impact of social media on the academic development of school students. Int J Bus Adm Res Rev. 2015;6(1):46-52.
7. Gajera C, Malaviya S, Patel U, Bavara M, Patel M, Mehta S. Social networking media: a newer approach to increase awareness against tobacco chewing. Natl J Community Med. 2014;5(2):249-52.
8. Carroll JA, Kirkpatrick RL. Impact of social media on adolescent behavioral health. Oakland, CA: California Adolescent Health Collaborative. 2011. Available at http://www.phi.org/uploads/application/files/g9g6xbfghdxoe3yytmc1rfvvm8lt1ly9sr3j369pstkloydj15.pdf. Accessed 24 January 2016.
9. Baliya JN, Kumar P, Lata P. Effect of use of social networking sites on the academic achievements of post-graduate students. International Journal Of Behavioral Social And Movement Sciences. 2014;1:74-81.
10. Paul J, Baker H, Cochran J. Effect of online social network on student academic performance. Computers in Human Behavior,2012;28(6):2117-27.
11. Al Hantoushi M, Al Abdullah M. Internet addiction among secondary school students in Riyadh city, its prevalence correlates and related to depression- a questionnaire study. Int J Med Sci Public Health. 2014;3(1):10-5.
12. Lam LT, Peng ZW. Effect of pathological use of the internet on adolescent mental health: a prospective study. Arch Pediatr Adolesc Med. 2010; 164(10):901-06.

Cite this article as: Madhusudan M, Chaluvaraj TS, Preethi Suresh, Santhosh M, Suresha DS. Study to Assess the Effects of Social Networking Sites on Medical College Students. Int J Community Med Public Health 2016;3:1204-8.