

Original Research Article

Use of social networking sites (SNS), social integration and social support in Indian medical students: a cross sectional investigation

Deoraj Sinha, Suyog V. Jaiswal*

Department of Psychiatry, H.B.T. Medical College and Dr. R. N. Cooper Mun. Gen. Hospital, Juhu, Mumbai, Maharashtra, India

Received: 20 March 2018

Accepted: 25 April 2018

***Correspondence:**

Dr. Suyog V. Jaiswal,

E-mail: suyogjaiswal@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Internet mainstreamed virtual socialization on social networking sites (SNS). Social relationship variables are linked to health. We investigated the social relationship variables and SNS use among medical students.

Methods: After institutional ethics committee approval, we invited 150 random undergraduate medical students and 150 postgraduate resident doctors from a medical college. Regular SNS users were included and those suffering from any psychiatric or chronic medical condition were excluded from the study. Of all the invited individuals, 104 undergraduates (56 females and 48 males) and 103 postgraduates (50 females and 53 males) consented for study.

Results: Facebook was the most commonly and regularly used SNS in our study sample. Daily average time spent by participants on SNS was 40 minutes. Mean number of SNS friends of undergraduates was 150 and of postgraduates was 143. Undergraduate medical students reported an average of 49 friends living locally and 74 friends living at a distance; postgraduate resident doctors reported average 80 friends living locally and 325 friends living at a distance. Undergraduates sought attention more frequently than postgraduates by posting photos to SNS. Postgraduates had their recreation and academics were more affected due to SNS than undergraduates. Number of SNS friends had no association with social integration, social support or social stress.

Conclusions: SNS may hamper the curricular as well as recreational activities of medicos, especially postgraduate resident doctors. The number of SNS friends is independent of a medico's social integration and may not be associated with social support and social stress.

Keywords: Medical students, Social networking sites (SNS), Social integration, Social support

INTRODUCTION

Socialization is the pivotal step in evolution of human species which furthered the way for civilization. The socialization is human nature and, we have a need to keep in touch and socialize with individuals in our society. Since the invention of internet and it became accessible to common people in mid 1990s, the user base of internet is growing steadily in general population, particularly among college students.¹ By 2016 around 3.5 billion people had access to internet and using it which is more

than 40% of world population.² The invention of internet and our inherent need for socialization gave rise to the whole new ecosystem of online social networking and social networking sites (SNS). SNS provide a computer-mediated medium to interact with people, thereby, helping people in connecting with old friends as well as making new ones. Social network sites are web-based services that allow individuals to construct a personal 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.³ These social sites enable them to share photographs, upload videos, and share their life experiences, music, likes, and dislikes. The users create their Internet profiles for self-disclosure to let others know about them. The profiles may include information about the user's political and religious views, sexual orientation, relationship status, etc. It may also include a myriad of photographs, list of online friends and affiliated online groups, and personal information such as address, phone number, and daily schedule. Weiskirich and Murphy reported that three-fourth of their sample students believed the internet had brought them closer to people.⁴ They also found that the socializing potential of the Internet increases with the expansion of connectivity and interactivity by the students. The younger people are likely to spend longer time and are more comfortable than older one when using online communications and networking.⁵

The use of SNS is also common in the medical college setting, i.e., among medical students and resident doctors. Various studies were done across the globe to study the use of SNS among medical professionals and students. The SNS such as Facebook is used predominantly for personal and social interaction than professional or educational purposes, though advantages of using SNS for educational purpose are far ranging.^{6,7} Use of social media tools augments students' learning opportunities, allows for real-time communication outside the classroom, helps students connect with medical experts, fostered collaborative opportunities, and enhances creativity.⁸ While the medical educators are struggling with how to conceptualize, teach, and assess professionalism in their programs, the digital world is not only providing new opportunities but also potential challenges for them. Apart from professional stress, the students in medical field are also subjected to social stress and limited social support due to time restraints.

Social relationship variables like social integration, social support and negative interaction are associated with health through various mechanisms. Social support in its broader sense is a social relationship benefitting health and well-being, coping with stress.⁹ Social integration is understood as an individual's participation in a broad range of social relationships and is treated as individual's characteristic.¹⁰ Persons with more types of social relationships live longer and have less cognitive decline with aging, greater resistance to infectious disease, and better prognoses when facing chronic life-threatening illnesses.¹¹ It is also asserted that social connections have health benefits as they provide psychological and material resources required to deal with stress.⁹ In the present era, Internet has become integral part of our life and SNS is contributing enough for social interactions. This raise the question as, to what extent online social interactions can give support and be helpful in coping with stress, especially in "high stress" and "time deprived" young individuals like medical students and resident doctors.

METHODS

This cross-sectional single interview study was conducted at a tertiary care municipal run teaching hospital after being approved by the Institutional Ethics Committee. Through random sampling, 150 undergraduate medical students and 150 postgraduate resident doctors were invited to participate in our study. The inclusion criteria for the study were that students and resident doctors should be regular users of various SNS. The regular use of SNS was operationally defined as at least one login to SNS per day. The exclusion criteria were diagnosed psychiatric disorder, chronic medical illnesses or disorders. We also excluded participants with any regular user of addictive substances except tobacco and caffeine.

We were able to interview 104 undergraduate medical students and 103 postgraduate resident doctors after obtaining their informed consent, rest declined or did not turn up for the interview or were excluded. Especially designed case record form was used to interview participants. Relationship questionnaire was used to assess social integration, social support and social stress management.¹² Social integration is assessed in terms of friends living locally (if one can travel relatively easily to where they live, spend some time with them, and then get home again in an evening or half a day.) and friends living at a distance (those not living locally).

We have focused on Facebook as the main SNS to evaluate the individual's involvement in Internet communication since it was most preferred SNS among our study participants. We determined whether each student or resident doctor had a Facebook account and collected the details on the number of friends they have on Facebook. Later, we described the results of questionnaire interview, in which we recorded and coded their Facebook usage to assess the frequency and duration of the participant's social browsing and searching.

The data was pooled, and the statistical analysis was done with SPSS v16 software package using chi square test for comparing qualitative variables of interest between undergraduate medical students and postgraduate resident doctors. The analysis was based on the gender, SNS used, time spent on SNS, purpose of using SNS, attention seeking, number of SNS friends and effect of SNS on leisure activities. Pearson correlation coefficient was used to analyse correlation between number of SNS friends, social integration, social stress and social support. P value less than 0.05 was considered significant.

RESULTS

We interviewed comparable participants of both genders among undergraduate medical students (56 females and 48 males, total 104) and postgraduate resident doctors (50 females and 53 males, total 103). All the participants in the study had at least one SNS account being used by them on regular basis. Various SNS used by the

participants were Facebook, Instagram, Twitter, etc. Facebook was the most commonly and regularly used SNS in our study sample. Facebook was being used by 95 out of 104 undergraduate medical students and 93 out of 103 postgraduate resident doctors. Interestingly, both undergraduate medical students and postgraduate resident doctors spent average time of 40 minutes per day on SNS use. On an average, medical students had 150 friends on the SNS and the residents had 143 friends on SNS. Undergraduate medical students reported an average of 49 friends living locally and 74 friends living at a distance; postgraduate resident doctors reported average 80 friends living locally and 325 friends living at a distance.

Significantly more number of undergraduate students (55.76%) than postgraduate resident doctors (35.90%) accepted that they post photographs to seek attention from their peers on SNS ($\chi^2=8.2$, $p=0.004$). Whereas, higher number of postgraduate resident doctors (28.20%)

believed that they spent less time on movies or music due to excessive use of SNS as compared to undergraduate medical students (09.20%) ($\chi^2=13.4$, $p=0.009$). About 12.5% of students spent more time on virtual computer games compared to 9.1% of resident doctors ($\chi^2=8.2$, $p=0.004$). About 24.3% of resident doctors had decreased interest in academic activities, whereas only 9.6% of students accepted to having less attendance in college lectures due to the increased use of Facebook and other SNS ($\chi^2=15.0$, $p=0.01$)

On evaluating the rate of satisfaction from SNS, it was found that there was a significant positive relation between two variables of social integration (friends living locally and friends living at a distance). Also, significant positive correlation was observed between social stress and social support. There no significant correlation found between number of friends on SNS and social integration, social stress or social support (Table 1).

Table 1: Correlation of number of SNS friends, social integration, social stress and social support.

		Friends on SNS	Friends living locally	Friends living at a distance	Social stress	Social support
Friends on SNS	Pearson r	-	-0.004	-0.072	0.054	-0.012
	P		0.950	0.302	0.437	0.865
Friends living locally	Pearson r		-	0.619	-0.080	-0.038
	P			0.000*	0.253	0.591
Friends living at a distance	Pearson r			-	0.002	0.045
	P				0.981	0.519
Social stress	Pearson r				-	0.229
	P					0.001*
Social support	Pearson r					-
	P					

* $P<0.05$

DISCUSSION

Social networking and communication is a phenomenon that has existed since our society began. The explosion of SNS and their regular usage affects the social networking management. In the early 90s, critics held the diffusion of Internet as an evidence of individuals' increasing alienation from society and public life somewhat like what television did in its initial years of popularity. Therefore, researchers conducted empirical tests on such claims to gain a more balanced understanding of SNS. Women are more likely to engage in online communication to maintain personal connections with family, friends, and co-workers, whereas men use online communication for pursuing sexual interests and romance.¹³ In terms of generational differences, young adults spend more time using online communication and are more comfortable doing so as compared to older generations.^{5,14} Online communication preferences evidence is mounting that online interaction may become the preferred mode of social contact for key groups of

Internet users. Medicos in most cases do not have frequent opportunities for social contacts in real setting outside their profession due to time constraints and busy schedules owing to their clinical and curricular engagements. Online social networking on the other hand allows social interaction defying the need for real interaction and utilising virtual space for social connections. Most of our participants utilised Facebook on regular basis for having social interactions. Average time spent by our participants was 40 minutes. Saini and colleagues found more than half of medical students spent more than 2 hours per day on internet per day and more than ninety percent logged to their SNS account at least once a day.¹⁵

In an in-depth review on SNS, Boyd and Ellison noted that the bulk of SNS research has focused on impression management and friendship performance, networks and network structure, online and offline connections, and privacy issues.³ The matter of concern according to Boyd and Ellison is the potential of SNS, which bridges (or

creates) a gap between online and offline connections, as a key component of social capital theory.³ The dynamic ways in which users present themselves on SNS suggest that these sites allow a process of self-exploration, identity redefinition, and negotiation of social structures. One of the major emphases of this study was on the online communication usage, especially Facebook, by the medical students and resident doctors of the medical community. More than half of the undergraduate medical students and one-third of the postgraduate resident doctors agreed on uploading pictures online to seek attention in our study. Communications on social network offer expression of one's thoughts and feelings. The need for attention can be fulfilled in virtual space through the praise and likes received for the posts on Facebook. This expression can many times relieve a person of his or her painful emotions, boost self esteem as well as offer emotional support. The attention seeking use of SNS is more prominently seen in the younger lot i.e. undergraduates. Social interactions of teenagers on SNS relieve many aspects of group anxiety which makes it easy for them to approach members of opposite sex with some ease.¹⁶ SNS connect individuals, from friends and family to strangers and celebrities, and may help to establish and maintain friendships, express thoughts, feeling and anxiety.^{17,18} Online social networking is argued to enhance benefits of engaging in face-to-face interaction by extending the reach and accessibility of our social networks.¹⁸

The traditional ways of recreation such as movies and music were affected in our participants, especially among postgraduate resident doctors than undergraduate medical students. Similarly, the curricular activities were also deteriorated in these participants due to use of SNS. Overreliance on social networking technology at cost of real social connection may impoverish social skills and ability to engage in meaningful conversations. The need for constant connection ignores the socialization resulting in short-term attention and a decreased ability to retain information.¹⁹ Turkle describes it as "alone together": always connected via technology, but in fact isolated.²⁰ These may be early markers of addictive behaviours with respect to use of SNS. Use of social networking in some cases is excessive and can be termed as pathological. This excessive use of SNS along and inability to cut down its use despite wishing to do so is a form of behavioural addiction.²¹ Social networking also has associations with a few psychiatric morbidities. Excessive SNS use and internet-related mental problems are frequently seen together with and complicated by psychiatric comorbidities.²² There is relationship between dependency on Facebook with poor quality of sleep as well as daytime dysfunction.²³ Moreover, in some cases, the Facebook dependence has been associated with frustration and jealousy in relationship.²⁴

Number of friends on SNS was taken as an indicator of social interaction on SNS of the participant for the study. We studied the correlation of the number of SNS friends

with variables of social integration, social stress and social support. SNS use meets basic human needs such as needs of safety, association, estimation, and self-realization. It offers the possibilities of social support and self-expression.²⁵ SNS users less frequently feel dissatisfied with their lives, and it is postulated that social networking site could help individuals overcome low satisfaction and low self-esteem.¹⁸ There was no significant association between number of SNS friends and social integration. This suggests the virtual social connection may not be necessarily a reflection of individual's social integration in the real world. Moreover, we failed to find any significant association between social support or social stress and number of SNS friends. Literature suggests SNS use is associated with greater feelings of social connectedness, social capital, social support, life satisfaction and self-esteem; it is also inversely associated with loneliness.²⁶⁻²⁸ This use of SNS needs to be studied in more detailed than only about number of SNS friends to gain meaningful insight into SNS use and its effect on social support and integration of the individuals especially medicos.

CONCLUSION

The use of SNS is routine among the undergraduate as well as postgraduate students of medicine. In some cases, SNS use hampers the curricular as well as recreational activities of medicos, especially postgraduate resident doctors. The number of SNS friends is independent of a medico's social integration and may not be associated with social support and social stress.

ACKNOWLEDGEMENTS

Authors would like to thank Participants who consented and spared their time for the study.

Funding: No funding sources

Conflict of interest: None declared

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

REFERENCES

1. Budden CB, Anthony JF, Budden MC, Jones MA. Managing the evolution of a revolution: Marketing implications of Internet media usage among college students. *Coll Teach Methods Styles J.* 2007;3:5-10.
2. Internet live stats. Internet Users. Available at: <http://www.internetlivesstats.com/internet-users/>. Accessed on 15 March 2018.
3. Boyd DM, Ellison NB. Social Network Sites: Definition, History, and Scholarship. *J Comput Commu.* 2008;13:210-30.
4. Weisskirch RS, Murphy LC. Friends, porn, and punk: Sensation seeking in personal relationships, Internet activities, and music preference among college students. *Adolescence.* 2004;39:189.

5. Howard PEN, Rainie L, Jones S. Days and nights on the Internet: The impact of a diffusing technology. *Am Behav Sci.* 2001;45:383-404.
6. Roblyer MD, McDaniel M, Webb M, Herman J, Witty JV. Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *Internet High Edu.* 2010;13:134-40.
7. Erfanian M, Javadinia SA, Abedini M, Bijari B. Iranian students and social networking sites: Prevalence and pattern of usage. *Procedia-Social Behav Sci.* 2013;83:44-6.
8. George DR, Dellasega C. Use of social media in graduate-level medical humanities education: two pilot studies from Penn State College of Medicine. *Med Teach.* 2011;33:e429-34.
9. Cohen S. Social relationships and health. *Am Psychol.* 2004;59:676.
10. Cohen S, Brissette I, Skoner DP, Doyle WJ. Social integration and health: The case of the common cold. *J Soc Struct.* 2000;1:1-7.
11. Cohen S, Janicki-Deverts D. Can we improve our physical health by altering our social networks? *Perspect Psychol Sci.* 2009;4:375-78.
12. Brissette I, Cohen S, Seeman TE. Measuring social integration and social networks. *Soc Support Meas Interv A Guid Heal Soc Sci.* 2000;:53-85.
13. Weiser EB. Gender Differences in Internet Use Patterns and Internet Application Preferences: A Two-Sample Comparison. *CyberPsychology Behav.* 2000;3:167-78.
14. Acquisti A, Gross R. Imagined communities: Awareness, information sharing, and privacy on the Facebook. In: *International workshop on privacy enhancing technologies.* Springer. 2006:36-58.
15. Saini VK, Baniya GC, Verma KK, Soni A, Kesharwani SK. A study on relationship of facebook and game addictive behaviour with personality traits among medical students. *Int J Res Med Sci* 2017;4:3492-97.
16. Subrahmanyam K, Greenfield P. Online communication and adolescent relationships. *Futur Child.* 2008;18:119-46.
17. Wilson RE, Gosling SD, Graham LT. A review of Facebook research in the social sciences. *Perspect Psychol Sci.* 2012;7:203-20.
18. Ellison NB, Steinfield C, Lampe C. The benefits of Facebook 'friends:' Social capital and college students' use of online social network sites. *J Comput Commun.* 2007;12:1143-68.
19. Turkle S. *Reclaiming conversation: The power of talk in a digital age.* Penguin; 2016.
20. Turkle S. *Alone together: Why we expect more from technology and less from each other.* Hachette UK;2017.
21. Andreassen CS, Torsheim T, Brunborg GS, Pallesen S. Development of a Facebook addiction scale. *Psychol Rep.* 2012;110:501-17.
22. Block JJ. Issues for DSM-V: internet addiction. *Am J Psychiatry.* 2008;165:306.
23. Wolniczak I, Caceres-DelAguila JA, Palma-Ardiles G, Arroyo KJ, Solís-Visscher R, Paredes-Yauri S, et al. Association between Facebook dependence and poor sleep quality: a study in a sample of undergraduate students in Peru. *PLoS One.* 2013;8:e59087.
24. Elphinston RA, Noller P. Time to face it! Facebook intrusion and the implications for romantic jealousy and relationship satisfaction. *Cyberpsychology, Behav Soc Netw.* 2011;14:631-35.
25. Riva G, Wiederhold BK, Cipresso P. Psychology of social media: From technology to identity. *Psychol Soc Netw Pers Exp Online Communities*; Riva, G, Wiederhold, BK, Cipresso, P, Eds;2016:1-11.
26. Baek YM, Bae Y, Jang H. Social and parasocial relationships on social network sites and their differential relationships with users' psychological well-being. *Cyberpsychology, Behav Soc Netw.* 2013;16:512-17.
27. Guo Y, Li Y, Ito N. Exploring the predicted effect of social networking site use on perceived social capital and psychological well-being of Chinese international students in Japan. *Cyberpsychology, Behav Soc Netw.* 2014;17:52-8.
28. Nabi RL, Prestin A, So J. Facebook friends with (health) benefits? Exploring social network site use and perceptions of social support, stress, and well-being. *Cyberpsychology, Behav Soc Netw.* 2013;16:721-27.

Cite this article as: Sinha D, Jaiswal SV. Use of social networking sites (SNS), social integration and social support in Indian medical students: a cross sectional investigation. *Int J Res Med Sci* 2018;6:2027-31.