



Impact of Social Networking Sites: A Cross-Sectional Comparative Study

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Abstract

Background: Social media has really become an integral part of people in daily lives and online social networking sites have caused profound changes in the way people communicate and interact. Medical students belong to the group of youth and adolescent which form the major chunk of the population accessing Social Networking Sites (SNS) online. Age and responsibility lead to maturity and students tend to utilize the time more judiciously and properly and not spend it on SNS. The growing popularity of social networking sites among students demands an introspection of the social behaviour.

Objectives: The purpose of this study is to compare the usage of social networking sites and its impact on sleep and social life among different batches of medical students.

Methods: A Cross-sectional comparative study was conducted among medical students using anonymous, self administered, structured questionnaire. Students were asked to provide demographic details, time spent on mobile and social networking sites along with sleeping habits and their perception about its affect on their social behaviour. A total of 210 students were included in the study.

Result: The mean age of Interns is 23.4 years whereas for 2nd year students it is 19.23 years with no significant difference in gender distribution between the two groups ($p=0.44$). Interns spend more time on voice calling and 2nd year students are more involved on SNS. There is significant variation in perception regarding spending less time on SNS ($p=0.001$) and it affecting the studies ($p=0.009$) among the two groups.

Conclusion: Like a coin with two sides, social networking sites have in their own way benefited as well as adversely affected the medical students. With time they become mature and are able to maintain a balance between Social media, academics and family. There is need to provide appropriate guidance and awareness to the students regarding use of Social Networking Sites.

Keywords: Social Networking Sites, Interns, Medical Students, Sleep, Social Life.

Introduction

Social Networking sites (SNS) are termed as web based services that give an opportunity to individuals to create their own personal profile with the choice of their own list of users and thereby connect with them in an altogether public forum¹ and view their own as well as other users'

online social networks and interact with people in their networks.² This concept arises from basic need of human beings to stay together in groups forming a community.³

During the past decade, online social networking has caused profound changes in the way people communicate and interact.⁴ Social networking

sites (SNS) have become popular with the help of digital technologies (tablet, smartphone, notebook, etc.) and internet recently.⁵ People spend more than usual hours on social networking sites to download pictures, browse through updates seek entertainment and chat around with friends to keep themselves connected to one another.¹ The growing popularity of social networking sites among students demands an introspection of the social behaviour.³

India is the seventh largest market worldwide for social networking after the U.S., China, Germany, Russian Federation, Brazil and the U.K.⁶ These networks have a huge impact on modern way of life, including the change in inter-personal communication and interaction⁷ Social media has really become an integral part of people in daily lives and they have a social networking sites account based on difference reasons (making new friends, following famous people, sharing personal information, commenting the events, etc.)⁵ Thanks to it young men and women now exchange ideas, feelings, personal information, pictures and videos at a truly astonishing rate⁸. Social media has become a way of life for most of the current young generations all over the world. It allows all kinds of nations to connect in ways that was previously unthinkable⁹.

Some have derived benefit out of these sites whereas some have become academically challenged by the use of these websites.⁸ The increasing dependence on technology for basic communication also highlights the importance of analysing how SNS are affecting daily processes¹⁰ Individuals have set their own limits as to when and when not to access these websites but there are very few out of the lot who does not access or make use of these sites at all.¹

Youth and adolescent form the major chunk of the population which access the SNS online. Medical students belong to this population. In the initial years the students are immature and tend to spend much time on SNS but as they progress through the years they gain maturity and tend to utilize the time more judiciously and properly. Due to the

rapid popularity of social networking sites the youth tends to distract themselves from their studies and family but on the contrary is also developing friendly and social ties with the world that revolves around them.¹

It is well documented that once in college, students find themselves cutting back on their sleep, in an effort to adjust and cope with their newfound workloads. Medical students, in particular, are often thought to have less free time, longer courses, and longer working hours than most of their fellow non-medical peers.¹¹

It has become necessary to assess the usage of social networking sites among different batches of medical students in order to determine whether or not, these sites have led to any impact on student's sleep and social life and how the trend varies among different batches. This paper will be therefore able to study and present both the positive and negative impacts of online networking on the most high in demand segment of our society.

Methods and Materials

A Cross-sectional comparative study was conducted among medical students of a tertiary care hospital of Maharashtra.

For the purpose of study all 2nd year MBBS students and Interns using internet on phone and willing to participate were included in the study. 2nd year of the MBBS course is the longest and generally relaxed, whereas in comparison internship is considered the toughest and most stressful year of the medical undergraduate's life. Hence for the comparison the students of these batches were considered. Participants who agreed to participate were explained the nature and the objectives of the study.

For both the groups questions regarding demographic details, time spent on mobile and social networking sites along with sites visited and reason for using SNS were included. Details about sleeping habits and their perception about affect of SNS on their social behaviour were collected. This was done using anonymous, self administered,

structured questionnaire. The questionnaire included open as well as closed ended questions. Data for both the groups were collected and a comparative analysis was done using appropriate statistical methods. Descriptive analysis was done and “p value” was calculated at 95% confidence interval

A total of 210 students (120 of 2nd year and 90 interns) were included in the study. No reference to the participant's identity was made at any stage during data analysis or in the paper. Approval for the study was taken from the Institutional Ethics Committee.

Results and Discussion

All of the respondents used internet on their mobiles and were in possession of smartphones.

The mean age of Interns is 23.4 years (SD 1.06 years) whereas for 2nd year students it is 19.23 years (SD 0.67 years). There is no significant difference in gender distribution between the two groups ($p=0.44$) Time spent on voice calling is significantly higher among interns as compared to 2nd year students ($p=0.012$). About 36% of the 2nd yr students spend less than 15 minutes on voice calling compared to only 16% of interns. (Fig 1)

2nd year students are more active on SNS and spend longer hours on SNS compared to Interns. About 66% of Interns spend less than 1 hour on SNS compared to only 49% of 2nd year students. (Fig 2) Interns have high work load and much busier schedule which may be the most probable cause of this difference.

In both the groups the main reason for using SNS is to keep in contact with other people. For some it is also the source of obtaining latest information and being up-to-date. A very small fraction of the students population use SNS for study purpose. (Fig 3)

The Social Networking Sites visited and Instant messaging services are common for both the groups with Facebook and Whatsapp being on top of the list respectively. (Fig 4) More interns use social networking sites compared to 2nd year

students but in case of instant messaging services the scenario is reversed. (Fig 5)

The sleeping habits vary in case of the two groups. Late night sleeping is more prevalent among the interns and about 16% slept after 2 AM compared to only 7% of 2nd year students. Most of the students didn't have problem in falling asleep and fell asleep within 15 minutes (61% interns and 66% 2nd year students). Maximum students slept for 6-8 hours (74% interns and 79% 2nd year students) and they rated their sleep quality as good (70% interns and 71% 2nd year students).(Table 1) A significant proportion of 2nd year students (87%) compared to interns (56%) felt that their eyes got tired due to excessive usage of SNS on mobile ($p<0.001$). Mental fatigue and physical tiredness was also common among the students on waking up in the morning. A significant portion of the students slept with their internet facility ‘on’ ($p<0.001$) and were in the habit of regularly checking for notifications ($p<0.001$). These findings are significantly higher in the 2nd year students and possible hindrance in having a good sleep. (Table 2)

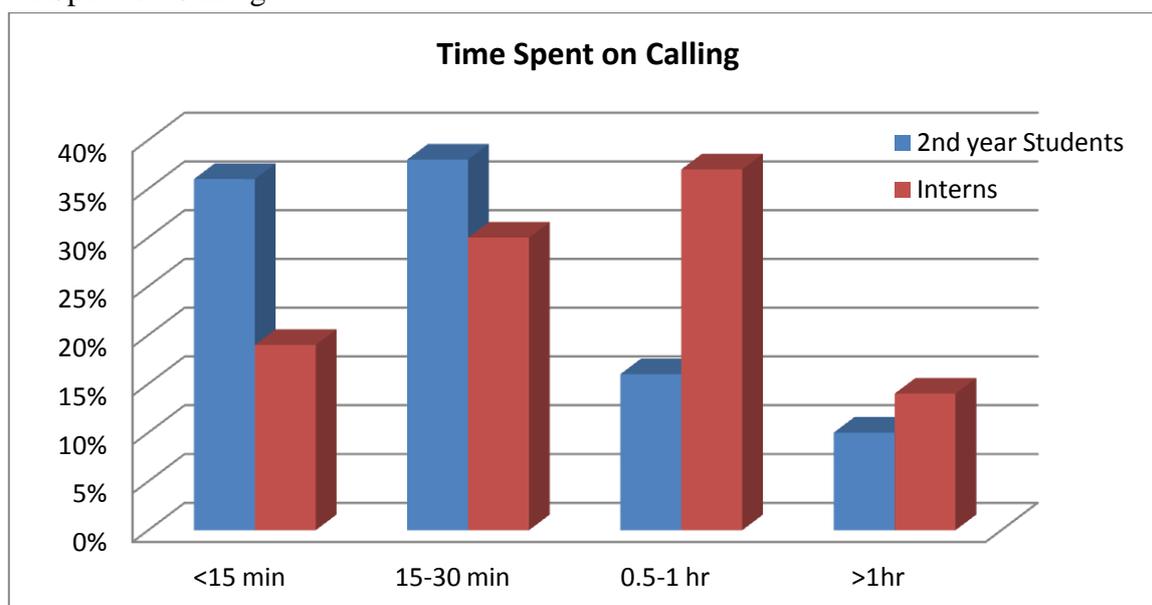
Interns are more content with the time spent on SNS and less than half (44%) felt that they needed to reduce the time spent on SNS, compared to 2nd year student where the perception among 66% is that they need to reduce time spent on SNS. This difference was statistically significant ($p=0.001$) and is most probably due to the fact that interns have more responsibility and maturity. More 2nd year students (67%) felt that their studies were being affected due to time spend on SNS as compared to about 49% of the interns who felt the same way. This difference in perception was also statistically significant ($p=0.009$). Both the interns and 2nd year students felt that there family life was not affected by the SNS and they were able to manage it properly. (Table 3)

From the above results it can be inferred that with maturity the students tend to understand the pros and cons of SNS and are able to divide and devote their time for meaningful purposes. Interns have a higher calling rate and time spend on SNS is also

less compared to their juniors of 2nd year. Also the data collected, on analysis shows that a large numbers of students spend more than one hour a day on social networking sites justifying the need to educate the students about the effects of SNS and how to use it for maximum benefit. Since abundant of their time is being spent surfing sites for various purposes they happen to neglect their sleep/social life and prefer sitting back home with an alternative to access these sites.

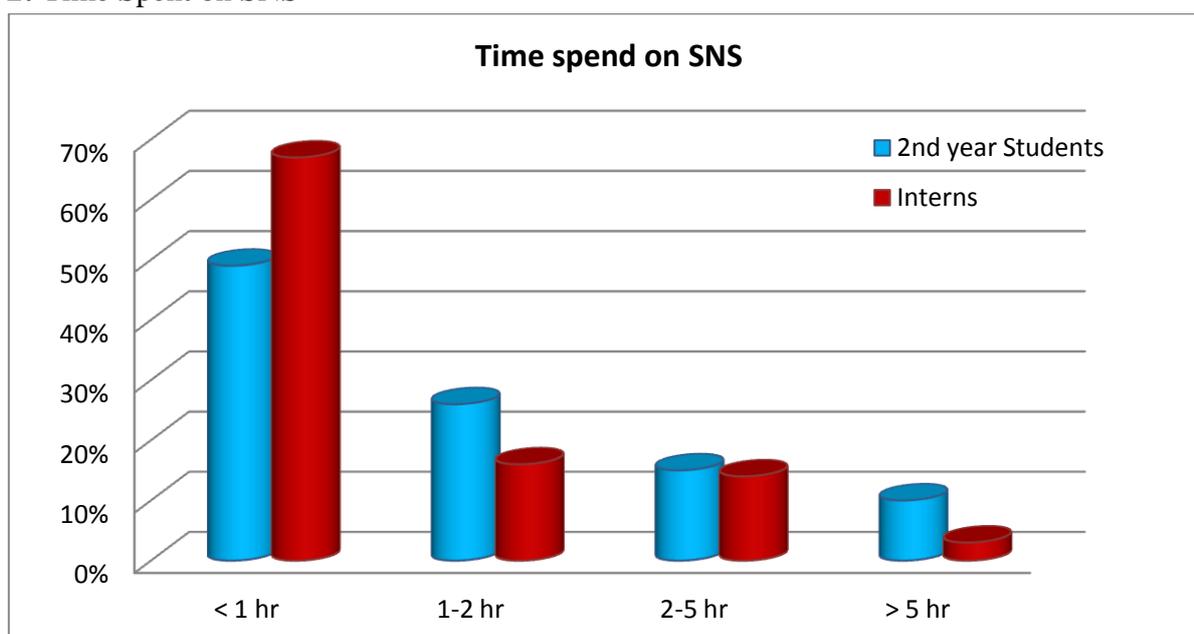
The study was able to fulfil its objectives and bring out the positive as well as the negative side of SNS and showed that interns were more responsible and could maintain a good balance between use of SNS and their sleep, studies and social life. However the other aspects which may affect the sleep or academic performance were not accounted for and also this study did not consider student’s psychological state; perhaps influences and motivations for social networking use.

Fig 1: Time Spent on Calling



Pearson $\chi^2 = 10.97$, $df = 3$, $p = 0.012$. The result is significant at $p < 0.05$ (95% CI)

Figure 2: Time Spent on SNS



Pearson $\chi^2 = 5.41$, $df = 3$, $p = 0.144$. The result is not significant at $p < 0.05$ (95% CI)

Figure 3: Reasons for using SNS

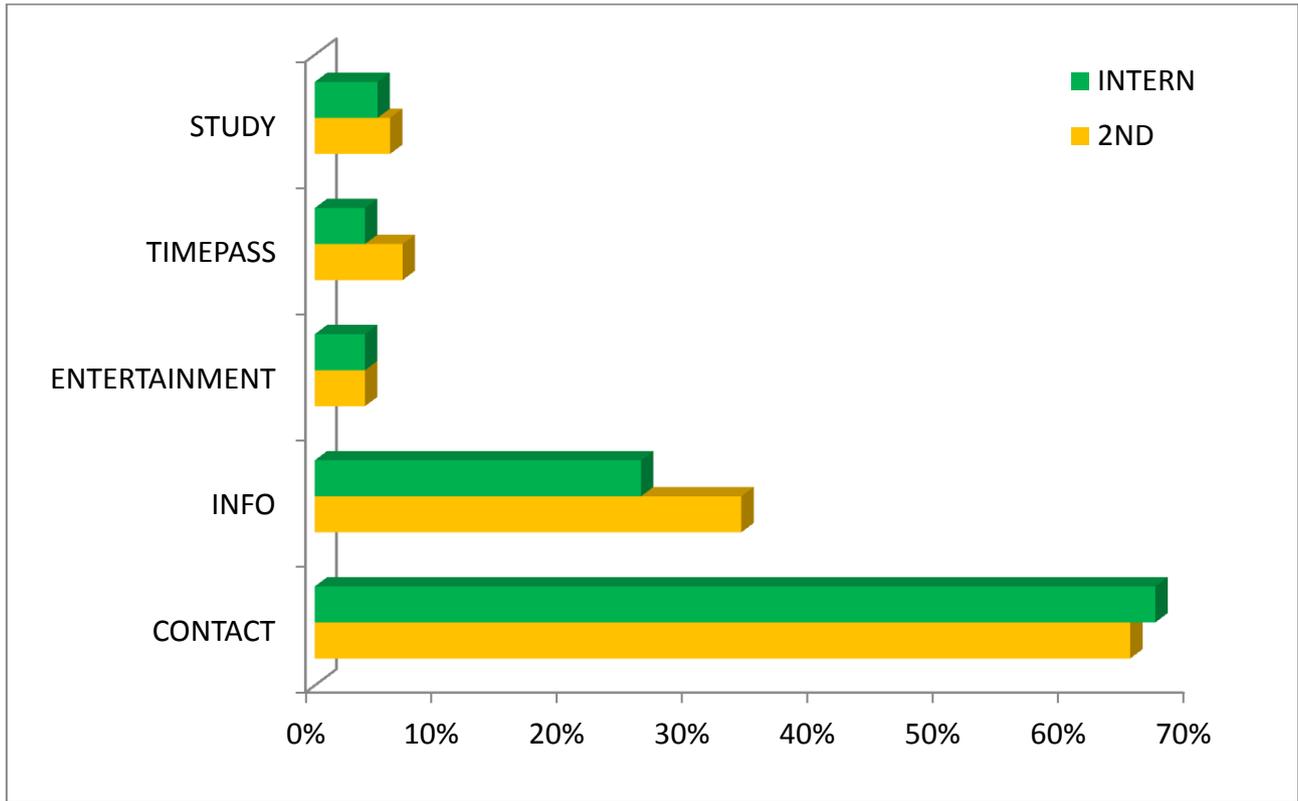


Fig 4: Social Networking Sites Visited

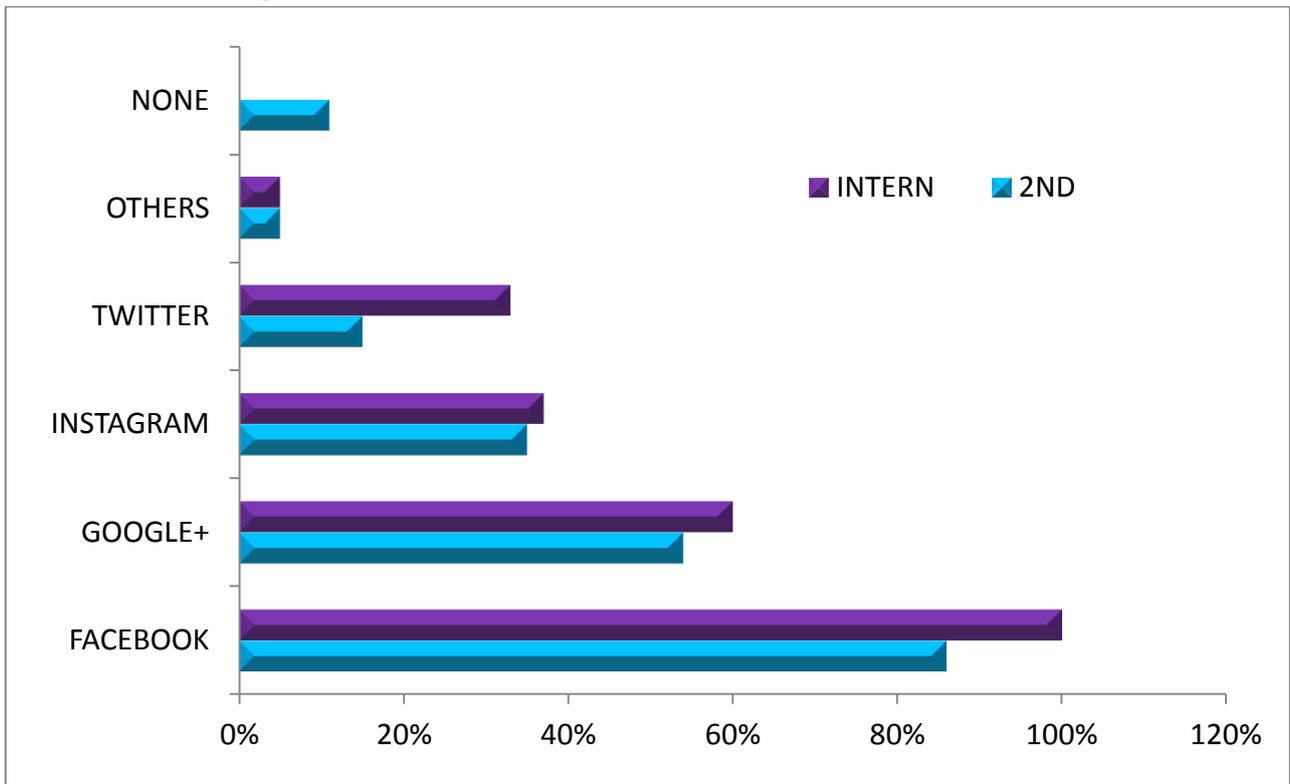


Fig 5: Instant Messaging Services Used

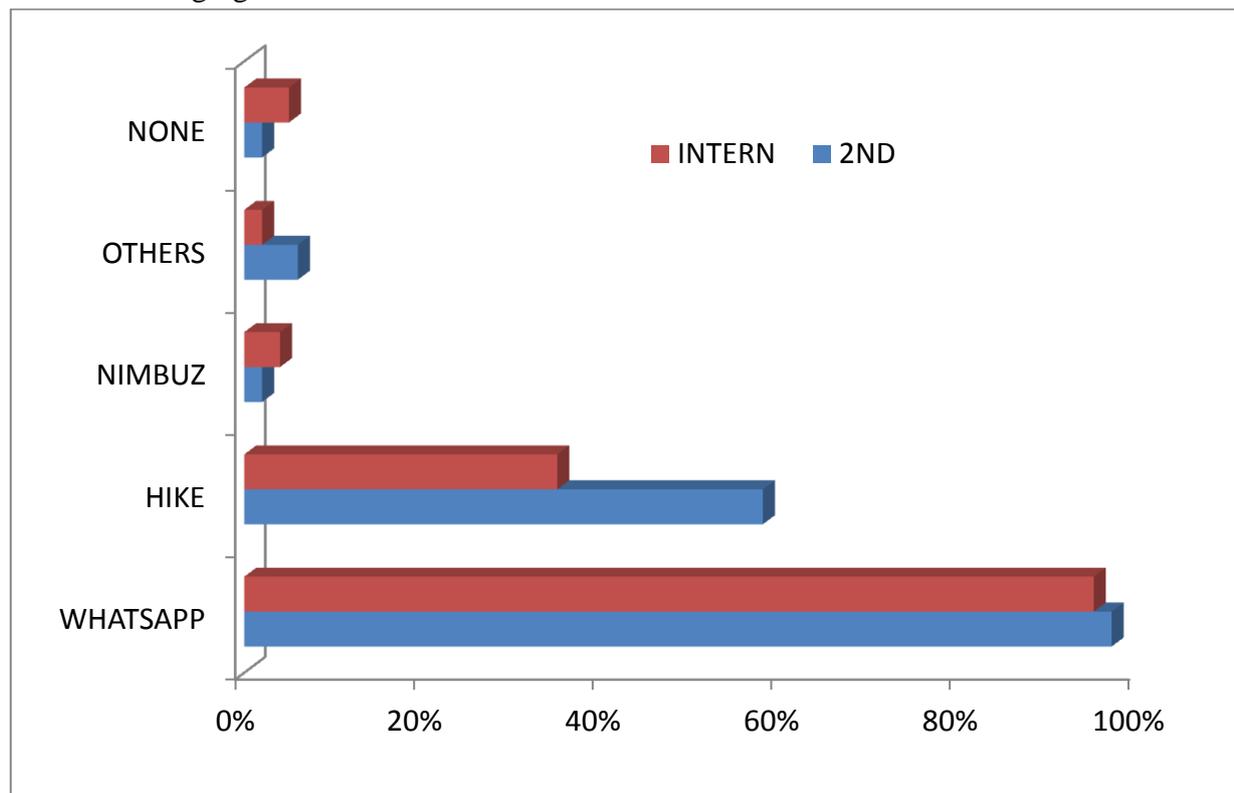


Table 1: Sleeping Habits of the Students

Sleeping habits	2 nd year (n=120)	Interns (n=90)	p value
Timing of Sleep			
Before 12 AM	46(38%)	36(40%)	0.08
12 AM – 2 AM	66(55%)	40(44%)	
After 2 AM	8(7%)	14(16%)	
Time taken to fall asleep			
<15 mins	79(66%)	55(61%)	0.53
15-30 mins	28(23%)	27(30%)	
>30 mins	13(11%)	8(9%)	
Total Duration of sleep at night			
<6 hrs	14(12%)	15(17%)	0.75
6-8 hrs	95(79%)	67(74%)	
>8 hrs	11(9%)	8(9%)	
Quality of sleep			
Very Good	31(26%)	22(25%)	0.72
Good	85(71%)	63(70%)	
Bad	4(3%)	5(5%)	

Table 2: Problems/Habits of the students

Problems/ Habits	2 nd year (n=120)		Intern (n=90)		p valve
	Yes	No	Yes	No	
Tiredness of Eyes	104(87%)	16(13%)	50(56%)	40(44%)	<0.001*
Mental tiredness	73(61%)	47(39%)	57(63%)	33(37%)	0.71
Physical tiredness	66(55%)	54(45%)	48(53%)	42(47%)	0.81
Regular Exercise	38(32%)	82(68%)	16(18%)	74(82%)	0.02*
Regularly check for Notification	79(66%)	41(34%)	36(40%)	54(60%)	<0.001*
Internet 'on' while sleeping	90(75%)	30(25%)	38(42%)	52(58%)	<0.001*

*indicates significant result at 95% confidence interval (p<0.05)

Table 3: Perception about SNS

Perception about SNS	2 nd year (n=120)		Intern (n=90)		p value
	Yes	No	Yes	No	
Do you think:					
Need to reduce time spent	79(66%)	41(34%)	40(44%)	50(56%)	0.001*
Studies are affected	80(67%)	40(33%)	44(49%)	46(51%)	0.009*
Family life is affected	40(33%)	80(67 %)	25(28%)	65(72%)	0.38

*indicates significant result at 95% confidence interval ($p < 0.05$)

Conclusion

Like a coin with two sides, social networking sites have in their own way benefited as well as adversely affected the medical students.

Social Networking sites offer a huge networking platform to people across various zones to connect with one another on both personal and professional fronts. It has brought about a revolutionary change and also has proven to be beneficial in all walks of life. Thus, it proves to hold its own advantages in every individual's life across the globe.

Social media is attractive and now days imagining life without it is impossible. It has become easy to get lost in this virtual world and hence caution is required.

The current study revealed that the students with time become mature enough to differentiate between good and evil. They are also able to maintain a balance between Social media, academics and family. There is need to provide appropriate guidance and awareness to the students regarding use of Social Networking Sites.

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