Use of Social Media among Medical Teachers and Students of Punjab, India: A Study

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Abstract - **Social media is becoming an inseparable part of modern education system. The present study is an attempt to investigate the awareness, use, purposes and major problems faced while using applications of social media in medical colleges. The data for the present study was collected from the 8 medical colleges of Punjab State of India. A self-designed questionnaire was designed and random sampling method was used to collect the data from the target population i.e. 400 (200 teachers and 200 students with a sample of 25 teachers and 25 students from each medical college i.e. 50X8 = 400). Out of 400 distributed questionnaires, 341 (85.25%) including 146 (73%) teachers and 195 (97.5%) students were received back dully filled in. The results of the present survey show that 69.2% of respondents have average knowledge and awareness of social media. 83.3% use social media applications for educational enhancement purposes. The major problem faced by the respondents is privacy issues with 43.9% responses. The study suggested that library services supplemented by social media applications can prove a great boon to the medical library users in getting the right information at the right time.**
Keywords: **Social Media, Awareness, Teachers, Students, Medical Sciences, Case Study, Punjab, India**

I. INTRODUCTION

The proliferation of social media has become famous among information users. Information resources are extensively used by teachers and students for various educational purposes. Social media and Internet are becoming inseparable parts of our day-to-day life and have a deep impact on teaching, research and learning processes. As per the literature review, the use of the Internet and social media applications in medical colleges are also increasing and teachers, researchers, and students are using these applications for the fastest exchange of medical information among colleagues and other stakeholders. Medical teachers and students are the extensive users and creators of the medical information, which is useful for the enhancement of medical education, research and for healthcare services. Thus, it is necessary that the information which is provided to them should be of high quality, easily accessible and beyond the limits of time and place. Social media along with Internet services make the way for developing countries to access information at a very low cost. The medical colleges spent a good amount to provide the facility of the Internet and other Information and Communication Technology applications access in their respective campuses for getting their teachers and students

well equipped with the latest knowledge. Thus, the present study is conducted to know, up to what extent the facility of Internet services and social media are being utilized, which sources of social media are helpful in the medical education, research and in healthcare.

II. REVIEW OF LITERATURE

Mohamed *&* Sumith (2011) conducted a study to assess the perception and use of social networking sites among students of Calicut University, Kerala. The results revealed that a majority of the students i.e. 58.9 % learn social media applications from their friends or colleagues and 46.3 % use the Internet or self-taught method to learn it. 48.5% of the respondent indicated that security and privacy are the major issues and 21.6% of respondents were fear of misusing their personal information. Madhusudhan (2012) carried out a survey of research scholars at Delhi University, Delhi and indicated that use of SNSs may be a waste of time, in other words, they had a negative attitude towards social networking sites. McGowan *et al.,* (2012) investigated the factors that influence the adoption and meaningful use of social media by physicians to share medical information. The study showed that overall 24.1% of the respondents used social media on daily basis or many times a day and found it relevant information providing tool for medical education, and 14.2% contributed new information via social media on a daily basis. The results showed that overall respondents used social media to share medical information with other physicians who had positive attitudes toward the use of social media.

Kumar & Kumar (2013) conducted a study at Maharishi Dayanand University, Rohtak. The results show 53.3% had not been facing any problem while using social media application. The study further pointed out that 6.7% of respondents face the problem of lack of time and 5.3% lack of privacy. Helou (2014) conducted a study and indicated that a majority of the respondents agreed that social networking sites had a positive impact on their academic performance. Alabdulkareem (2015) revealed that majority of the students had not taken any formal training in the use of computers or ICT and only smaller percentage of students i.e. 2.8% had undergone such training as compared to teachers with 26.32% responses. Avci, Gerek, Eren, & Ayudenizoz (2015) conducted a study on faculty and

students in Afyon Kocatepe University (Turkey) to assess the social media usage in medicine by medical students in Turkey and results show that 89.3% of the respondents used social media for professional purposes. The implications of the findings suggested that students were not aware of the ethical issues, so there is a need to create awareness on these issues. Mamudu & Oyewo (2015) conducted a study and result revealed 60.1% of the respondents had average knowledge of ICT, 26.3% respondents had high knowledge of ICT and a very smaller percentage considered their knowledge of ICT to be very high while only 6.8% and 1.4% respondents had limited and very limited knowledge of ICT respectively. Bialy & Jalali (2015) reported that the medical teachers used SNSs mainly to post opinions (86%), share videos (81%) etc. On the other hand, students used SNSs mainly to chat with friends with 94%, for medical education purposes with 67%, to share videos with 62%, to post opinions with 49%, to take surveys with 11% respectively. Galiatsatos, Porto-Carreiro, Hayasfi & Christmas (2016) conducted a study on assessment of the use of social media for medical education and its impacts on attitude and behavior of residents. 77% of the respondents used social media for educational purposes especially, Twitter.

Geetha, Savitha & Padmamma (2016) examined the use of social networking sites by engineering students at New Horizon College of Engineering. The study shows that a majority of the respondents i.e. 60% found the problem of non-availability of Internet facility, 46% found lack of time and 38% felt lack of security and privacy. Guraya (2016) conducted a meta-analysis and systematic review of the use of social networking sites for medical students for educational purposes. The study indicated that 20% respondents used SNSs for sharing academic and educational information. Lalnuupuii & Verma (2016) conducted a survey-based study on the use of social networking sites by faculty and students of NIT, Mizoram. 50% of the respondents used SNSs to find information, 32% for entertainment and 30% for sharing photos and videos. Nadh (2016) examined the use of social networking tools among students of MNR Medical College, Sagareddy of Telangana State. The results showed that a majority of the respondents (83.21%) used SNSs for academic purposes, 78.94% for personal information and 22.83% also for entertainment. Sattar *et al.,* (2016) conducted a questionnaire-based survey was in the Department of Medical Education, College of Medicine, King Saud University, Riyadh, Saudi Arabia. The study revealed that 321 (74.3%) respondents used social sites for sharing the healthcare information. A majority of the respondents i.e. 90.7% believed that social media provide enough opportunities to promote academic medical activities. 360 (83.3%) respondents agreed that social sites are useful for improvement in the quality of healthcare and communication. Hussain, Loan & Yaseen (2017) investigated the use of social networking sites by the post-graduate students at the Departments of Sociology and Social Work, University of Kashmir. A majority of the

respondents used the social networking sites to enhance their knowledge with 82.35% responses, 60% to stay connected with their families and friends and 58.82% for sharing useful information.

III. OBJECTIVES OF THE STUDY

The main objectives of the study are
1. To find the level of awareness of social media and among teachers and students of medical colleges of Punjab.
2. To explore the purposes of use of social media among medical teachers and students.
3. To know the types of applications of social media used by the respondents and to identify the favorite application(s) of social media among respondents.
4. To know the level of awareness of ethical guidance for using social medical in the medical profession and effects of social media on academics.
5. To assess the barriers and difficulties faced by the teachers and the students in access to social media applications.

A. Research Methodology

A total sample of 146 teachers and 195 students including undergraduates/ postgraduates was taken up for the present study. The random sample method was used to collect data after consultation with the subject experts. 50 respondents were selected randomly from each medical college comprising 25 teachers and 25 students. Accordingly, 400 questionnaires (i.e. 50 x 8=400) were distributed among the teachers and the students of medical colleges under study. Out of which, 341 (85.25%) including 146 (73%) teachers and 195 (97.5%) students were received back dully filled in.

B. Questionnaire

A self-structured questionnaire was distributed among the respondents of the study i.e. medical teachers and students to collect the necessary primary data.

C. Interview

The respondents were interviewed to fill-up the gap(s) in their responses.

D. The Scope of the Study

The scope of the present study limited to the medical colleges of Punjab State affiliated to Baba Farid University of Health Sciences, Faridkot, Punjab up to January 2016 or before. The study is further limited to students and teachers of medical colleges included in the study for investigation.

The list of medical colleges under study is
1. Guru Gobind Singh Medical College & Hospital, Faridkot
2. Government Medical College & Hospital, Amritsar
3. Government Medical College & Hospital, Patiala

4.   Christian Medical College & Hospital, Ludhiana
5.   Dayanand Medical College & Hospital, Ludhiana
6.   Sri Guru Ram Das Institute of Medical Sciences & Research, Amritsar
7.   Adesh Institute of Medical Sciences & Research, Bathinda
8.   Punjab Institute of Medical Sciences, Jalandhar.

IV. RESULTS AND DISCUSSION

The responses of the study are presented in two categories i.e. demography data and social media, knowledge, attitude and use among the medical teachers and students.

A. Part A: Demographic Data

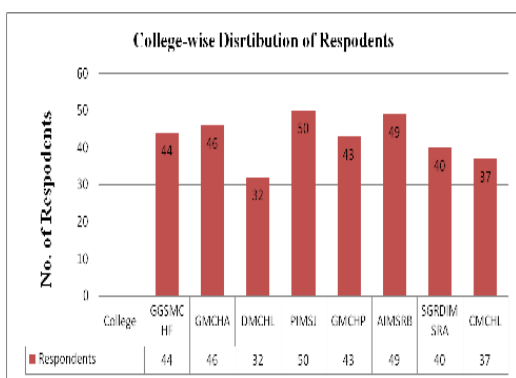#### 1. College-Wise Distribution of Respondents

Fig. 1 College-Wise Distribution of Respondents

Figure 1 exhibits the college-wise distribution of respondents. 44 respondents are from Guru Gobind Singh Medical College and Hospital, Faridkot (GGSMCHF), 46 from Government Medical College, Amritsar (GMCA), 32 from Dayanand Medical College & Hospital, Ludhiana (DMCHL), 50 from Punjab Institute of Medical Sciences, Jalandhar (PIMSJ), 43 from Government Medical College & Hospital, Patiala (GMCHP), 49 from Adesh Institute of Medical Sciences & Research, Bathinda (AIMSRB), 40 from Sri Guru Ram Das Institute of Medical Sciences & Research, Amritsar (SGRDIMSRA) and 37 from Christian Medical College & Hospital, Ludhiana (CMCHL).
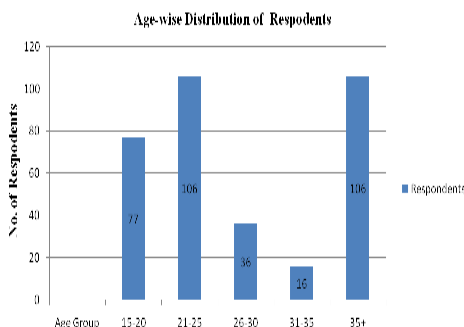
2. Age-Wise Distribution of Respondents

Fig. 2 Age-Wise Distribution of Respondents

Figure 2 shows the age-wise distribution of respondents. In the 15-20 age group, there are 77 respondents, 21-25 age group 106 respondents, 26-30 age group 36 respondents, 31-35 age group 16 respondents and 35+ age group 106 respondents respectively.

B. Part B: Social Media, Knowledge, Attitude and Use among Medical Teachers and Student

1. Level of Computer/ Smartphone/ Social Media Literacy

TABLE I SHOWS THAT A MAJORITY OF THE RESPONDENTS

College	Response			Total
	Expert	Average	Below Average	
GGSMCHF	11 (25)	33 (75)	-	44 (100)
GMCHA	11 (23.9)	34 (73.9)	1 (2.2)	46 (100)
GMCHP	09 (20.9)	30 (69.8)	04 (9.3)	43 (100)
CMCHL	10 (27.0)	26 (70.3)	1 (2.7)	37 (100)
DMCHL	12 (37.5)	20 (62.5)	-	32 (100)
SGRDIMSRA	13 (32.5)	27 (67.5)	-	40 (100)
AIMSRB	15 (30.6)	32 (65.3)	2 (4.1)	49 (100)
PIMSJ	15 (30)	33 (66)	2 (4)	50 (100)
Total N	96 (27.9)	235 (69.2)	10 (2.9)	341 (100)

Abbreviations
R   =   Response
N   =   Number

Table I shows that a majority of the respondents i.e. 236 (69.2%) admitted that they have average knowledge and literacy of computer and social media. In this category, the respondents of GGSMCHF are on the top with 34 (75%) responses, followed by GMCHA with 34 (73.9%) responses. The respondents of other colleges fall in the range between 62%-71% responses. In the next category i.e. expert level of computer and social media competency, the respondents of DMCHL are on the top with 12 (37.5%) responses, followed by respondents from other colleges ranging from 20.9% to 32.5%. Only a few numbers of respondents i.e. 10 (2.9%) from all the colleges have indicated that they have below average level of knowledge about computer /smartphone/ social media. The study conducted by Mamudu & Oyewo (2015) also support the results as 60.1% of the respondents had average knowledge of ICT, 26.3% respondents had high knowledge of ICT and a very smaller percentages considered their knowledge of ICT to be very high while only 6.8% and 1.4% respondents had limited and very limited knowledge of ICT respectively.

2. Method of Learning of Internet and Social Media Applications

TABLE II SHOWS THAT A MAJORITY OF THE RESPONDENTS FROM SGRDIMSRA

College	N	GC	TE	ST	GCLS	EC
GGSMCHF	44 (100)	11 (25)	12 (27.3)	26 (59)	4 (9.1)	1 (2.3)
GMCHA	100 (46)	15 (32.6)	10 (2.2)	26 (56.5)	2 (4.3)	-
GMCHP	43 (100)	16 (37.2)	8 (18.6)	30 (69.7)	5 (11.6)	2 (4.6)
CMCHL	37 (100)	8 (21.6)	6 (16.2)	26 (70.3)	2 (5.4)	8 (21.6)
DMCHL	32 (100)	5 (15.6)	7 (21.9)	25 (78.1)	2 (6.2)	1 (3.1)
SGRDIMSRA	40 (100)	21 (52.5)	14 (35)	28 (70)	3 (7.5)	1 (2.5)
AIMSRB	49 (100)	21 (42.8)	11 (22.4)	30 (61.2)	5 (10.2)	3 (6.12)
PIMSJ	50 (100)	19 (38)	20 (40)	31 (62)	4 (8)	2 (4)
Total N	341 (100)	116 (34.0)	88 (25.8)	222 (65.1)	27 (7.9)	18 (5.3)

Abbreviations

GC	=	Guidance from Colleagues
TE	=	Trial and Error
ST	=	Self-Taught
GCLS	=	Guidance from Computer or Library Staff
EC	=	External Course

Table II shows that a majority of the respondents from SGRDIMSRA have taken guidance from their colleagues to learn how to use of social media applications with 21 (52.5%) responses, followed by AIMSRB with 21 (42.8%) and PIMSJ with 19 (38%) responses. The respondents of the PIMSJ have learned social media by trial and error method with 20 (40%) responses, followed by the SGRDIMSR with 14 (35%) and the GGSMCHF with 12 (27%) responses.

Respondents from all the colleges under study learned about the Internet and social media applications by themselves with response percentage ranging from 56.5% to 78.1% respectively. A less number of respondents from GMCHP i.e. 5 (11.6%) have taken guidance from computer or library staff. The respondents of CMCHL have taken the lead for learning the social media applications through external courses with 8 (21.6%) responses. The results of the study conducted by Alabdulkareem (2015) revealed that majority of the students had not taken any formal training in the use of computers or ICT and only smaller percentage of students i.e. 2.8% had undergone such training as compared to teachers with 26.32% responses.

3. Purposes of Use of Social Media Sites

TABLE III DEPICTS THAT A MAJORITY OF THE RESPONDENTS

College Name	E	R	I	P	K	F	FF	T	S	PT	A	Total R
GGSMCHF	34 (77.3)	19 (43.2)	26 (50.9)	15 (30.9)	24 (54.5)	9 (20.4)	4 (9.1)	23 (52.3)	24 (54.5)	15 (34.0)	2 (4.5)	44 (100)
GMCHA	39 (84.8)	23 (50)	29 (63.0)	18 (39.1)	14 (30.4)	14 (30.4)	6 (13.0)	16 (34.8)	14 (30.4)	11 (23.9)	4 (8.7)	46 (100)
GMCHP	36 (83.7)	18 (41.9)	19 (44.2)	11 (25.6)	13 (30.2)	9 (20.9)	5 (11.6)	10 (23.2)	14 (32.5)	13 (30.2)	2 (4.6)	43 (100)
CMCHL	31 (83.8)	16 (42.2)	19 (51.3)	12 (32.4)	9 (24.3)	4 (10.8)	3 (8.1)	13 (35.1)	11 (29.7)	6 (16.2)	3 (8.1)	37 (100)
DMCHL	21 (65.6)	12 (37.5)	17 (53.1)	4 (12.5)	6 (18.7)	3 (9.4)	4 (12.5)	8 (25)	11 (34.4)	5 (15.6)	2 (6.2)	32 (100)
SGRDIMSRA	36 (90)	22 (55)	26 (65)	16 (40)	19 (42.5)	9 (22.5)	7 (17.5)	8 (20)	14 (35)	9 (22.5)	6 (15)	40 (100)
AIMSRB	45 (91.8)	19 (38.8)	31 (63.3)	22 (44.9)	20 (40.8)	11 (22.4)	8 (16.3)	18 (36.7)	19 (38.8)	9 (18.4)	3 (6.1)	49 (100)
PIMSJ	42 (84)	21 (42)	31 (62)	19 (38)	22 (44)	11 (22)	5 (10)	18 (36)	19 (38)	12 (24)	6 (12)	50 (100)
Total N	284 (83.3)	150 (44.0)	198 (58.0)	117 (34.3)	127 (37.2)	70 (20.5)	42 (12.3)	114 (33.4)	126 (37.0)	80 (23.4)	28 (8.2)	341 (100)

Abbreviations

E	=	Educational Enhancement
R	=	Research
I	=	To Find Useful Information
PA	=	Professional Activities
K	=	To Update Knowledge
F	=	To Make New Friends
FF	=	Feedback to Friends
T	=	To Spend Time
S	=	Sharing Photos/ Files/ Videos
PT	=	Promoting Thoughts
A	=	Any Other Purpose

Table III depicts that a majority of the respondents i.e. 45 (91.8 %) from AIMSRB, followed by the SGRDIMSRA with 36 (90%) responses use the social media for education enhancement purposes. 26 (65%) respondents from SGRDIMSRA use the social media for finding important information, followed by 31 (63.3%) respondents from AIMSRB. The social media is used for research purposes by the respondents of SGRDIMSRA with 22 (55%), followed by GMCHA with 23 (50%) responses. The respondents from AIMSRB with 22 (44.9%) responses, followed by SGRDIMSRA with 16 (40%) responses admitted that they used social media for professional activities. 24 (54.5%) respondents from GGSMCHF use social media for updating their knowledge, followed by SGRDIMSRA with 19 (47.5 %) responses.

The respondents from GGSMCHF with 23 (52.3%), followed by AIMSRB with 18 (36.7%) responses also indicated that they used social media for spending their leisure time. Next in order comes, the respondents of GGSMCHF with 24 (54.5%) responses, who use it for sharing photos/files/videos, followed by AIMSRB with 19 (38.8%) responses. 15 (34%) respondents from GGSMCHF and 12 (24%) respondents from PIMISJ admitted that they use social media for promoting thoughts or ideas. Only i.e. 8.2% respondents from all the colleges under study used social media for other purposes. Mohamed & Sumith (2011) reported that a majority of the students i.e. 58.9 % learn social media applications from their friends or colleagues and 46.3 % use the Internet or self-taught method to learn it. Avci, Gerek, Eren, & Ayudenizoz (2015) found that 89.3% of the respondents used social media for professional purposes. Bialy & Jalali (2015) reported that the medical teachers used SNSs mainly to post opinions (86%), share videos (81%) etc.

On the other hand, students used SNSs mainly to chat with friends with 94%, for medical education purposes with 67%, to share videos with 62%, to post opinions with 49%, to take surveys with 11% respectively. Galiatsatos, Porto-Carreiro, Hayasfi & Christmas (2016) found that 77% of the respondents used social media for educational purposes especially, Twitter. Guraya (2016) reported that 20% of the respondents used SNSs for sharing academic and educational information. Lalnuupuii & Verma (2016) reported that 50% of the respondents used SNSs to find

information, 32% for entertainment and 30% for sharing photos and videos. Nadh (2016) indicated that a majority of the respondents (83.21%) used SNSs for academic purposes.

Sattar *et al.,* (2016) conducted a study that revealed that 74.3% of the respondents used social sites for sharing the healthcare information and 90.7% believed that social media provide enough opportunities to promote academic medical activities. 83.3% of respondents agreed that social sites are useful for improvement in the quality of healthcare and communication. Hussain, Loan & Yaseen (2017) found that a majority of the respondents used the social networking sites to enhance their knowledge with 82.35% responses, 60% to stay connected with their families and friends and 58.82% for sharing useful information.

4. Awareness of Ethical Guidance for Using Social Medical in the Medical Profession

TABLE IV SHOWS THE LEVEL OF AWARENESS AMONG THE RESPONDENTS FROM MEDICAL COLLEGES

College	Response		Total R
	Yes	No	
GGSMCHF	27 (61.4)	17 (38.6)	44 (100)
GMCHA	29 (63.0)	17 (37.0)	46 (100)
GMCHP	31 (72.1)	12 (27.9)	43 (100)
CMCHL	30 (81.1)	7 (18.9)	37 (100)
DMCHL	21 (65.6)	11 (34.4)	32 (100)
SGRD IMSRA	29 (72.5)	11 (27.5)	40 (100)
AIMSRB	34 (69.4)	15 (30.6)	49 (100)
PIMSJ	30 (60)	20 (40)	50 (100)
Total N	231 (67.7)	110 (32.3)	341 (100)

Table IV shows the level of awareness among the respondents from medical colleges under study about the ethical guidelines for using social medical in the medical profession. The respondents of CMCHL with 30 (81.1%) responses, followed by GMCHP with 31 (72.1%) and SGRDIMSR with 29 (72.5%) responses are aware of ethical issues of social media use in the medical profession.

Furthermore, 34 (69.4%) respondents from AIMSR and 21 (65.6%) from DMCHL also admitted that they are well aware of ethical guidance for using social medical in the medical profession. Avci, Gerek, Eren, & Ayudenizoz (2015) in their study found that medical students under study were not aware of the ethical issues and suggested that necessary awareness must be created on these issues.

5. Relevancy of Information for Medical Education

TABLE V HIGHLIGHTS THAT A MAJORITY OF THE RESPONDENTS FROM GMCHA

College	Quite a lot	Somewhat	Not at all	Total R
GGSMCHF	28 (63.6)	16 (36.4)	-	44 (100)
GMCHA	38 (82.6)	8 (17.4)	-	46 (100)
GMCHP	16 (37.2)	24 (55.8)	3 (7.0)	43 (100)
CMCHL	20 (54.1)	13 (35.1)	4 (10.8)	37 (100)
DMCHL	14 (43.7)	17 (53.1)	1 (3.1)	32 (100)
SGRDIMSRA	32 (80)	8 (20)	-	40 (100)
AIMSRB	38 (75.5)	10 (20.4)	1 (2)	49 (100)
PIMSJ	37 (74)	12 (24)	1 (2)	50 (100)
Total N	223 (65.4)	108 (31.7)	10 (2.9)	341 (100)

Table V highlights that a majority of the respondents from GMCHA felt that social media sites provide quite a lot relevant information on medical education with 38 (82.4%) responses, followed by SGRDIMSRA with 32 (80%) and AIMSR with 38 (75.5%) responses.

Next comes the respondents of PIMSJ with 37 (74%) and GGSMCHF with 28 (63.6%) responses respectively. GMCHP with 24 (55.8%) responses, followed by DMCHL with 17 (53.1%) responses felt that social media sites provide 'somewhat' relevant information to medical education.

A very few numbers of respondents i.e. 4 (10.8%) from CMCHL, followed by GMCHP with 3 (7%) also indicated that 'not at all' relevant information is exchanged through social media. McGowan *et al.,* (2012) found that overall 24.1% of the respondents used social media on daily basis or many times a day and found it relevant information providing tool for medical education.

6. Effects of Social Media on Academics

TABLE VI REVEALED THAT THE RESPONDENTS OF GGSMCHF

College	SP	UI	SM	SU	AS	UC	Total R
GGSMCHF	18 (40.9)	14 (31.8)	10 (22.7)	13 (29.5)	6 (13.6)	24 (54.5)	44 (100)
GMCHA	15 (32.6)	6 (13.0)	5 (10.9)	11 (23.9)	9 (19.6)	15 (32.6)	46 (100)
GMCHP	14 (32.5)	15 (34.8)	8 (18.6)	7 (16.3)	4 (9.3)	10 (23.3)	43 (100)
CMCHL	8 (21.6)	11 (29.7)	5 (13.5)	10 (2.7)	6 (16.2)	8 (21.6)	37 (100)
DMCHL	12 (37.5)	13 (40.6)	10 (31.2)	8 (25)	2 (6.2)	4 (12.5)	32 (100)
SGRDIMSRA	12 (30)	19 (47.5)	4 (10)	17 (42.5)	15 (37.5)	13 (32.5)	40 (100)
AIMSRB	9 (18.4)	4 (8.2)	3 (6.1)	18 (36.7)	6 (12.2)	18 (36.7)	49 (100)
PIMSJ	17 (34)	9 (18)	1 (2)	15 (30)	11 (22)	11 (22)	50 (100)
Total	105 (30.5)	91 (26.7)	46 (13.5)	99 (29.0)	59 (17.3)	103 (30.2)	341 (100)

Abbreviations
SP = Still Preference to Traditional Ways of Gathering Medical Information
UI = Unauthentic Information
SM = Social Media is a Waste of Time
SU = Stay Up and Lack of Sleep
AS = Addiction to Social Networking Sites (SNSs)
UC = Unable to Concentrate on Teaching/ Learning

Table VI revealed that the respondents of GGSMCHF indicated that rather using social media applications, they still prefer traditional ways of gathering medical information with 18 (40.9%) responses, followed with DMCHL 12 (37.5%) and PIMSJ with 17 (34%) responses. The respondents of SGRDIMSRA feel that there is unauthentic information exchanged on social media with 19 (47.5%) responses, followed by the GMCHP with 15 (34.8%) and DMCHL with 13 (40.6%) responses. The option of 'social media is a waste of time' is chosen by the respondents of DMCHL with 10 (31.2%) responses, followed by the GGSMCHF with 10 (22.7%) responses. Most of the respondents of SGRDIMSRA with 17 (42.7%) responses feel that they have stayed up and lack of sleep, followed by the respondents of AIMSRB with 18 (36.7%) responses. The option 'addiction to SNSs' is chosen by the respondents of SGRDIMSR with 15 (37.5%), followed by

PIMSJ with 11 (22%) responses respectively. Most of the respondents i.e. 24 (54.5%) of GGSMCHF feel that they cannot concentrate on teaching and learning, followed by the respondents of AIMSR with 18 (36.7%) responses. Madhusudhan (2012) indicated that a majority of the respondents felt that the use of SNSs may be a waste of time, in other words, they had a negative attitude towards social networking sites. Helou (2014) reported that a majority of the respondents agreed that social networking sites had a positive impact on their academic performance.

7. Problems Faced by the Respondents while Accessing Social Media Applications

TABLE VII SHOWS THAT THE RESPONDENTS OF AIMSRB

College	Access Denied by the College	Data Security	Lack of Information Literacy and More Training or Orientation Required	Cyber Crime	Privacy Concern	Unwanted Intension from Others	Total R
GGSMCHF	2 (4.5)	18 (40.9)	7 (15.9)	4 (9.1)	21 (47.7)	9 (20.4)	44 (100)
GMCHA	1 (2.2)	10 (21.7)	7 (15.2)	6 (13.0)	21 (45.6)	6 (13.0)	46 (100)
GMCHP	3 (6.9)	11 (25.3)	2 (4.6)	4 (9.3)	13 (30.2)	4 (9.3)	43 (100)
CMCHL	7 (18.9)	6 (16.2)	10 (2.7)	8 (21.6)	15 (40.5)	7 (18.9)	37 (100)
DMCHL	1 (3.1)	8 (25)	1 (3.1)	5 (15.6)	21 (65.6)	1 (3.1)	32 (100)
SGRDIMSRA	6 (15)	15 (37.5)	7 (17.5)	8 (20)	22 (55)	9 (22.25)	40 (100)
AIMSRB	18 (36.7)	14 (28.6)	5 (10.2)	8 (16.3)	19 (38.7)	4 (8.2)	49 (100)
PIMSJ	15 (30)	10 (20)	3 (6)	9 (18)	17 (34)	6 (12)	50 (100)
Total N	53 (15.5)	92 (27.0)	42 (12.3)	52 (15.2)	149 (43.7)	46 (13.5)	341 (100)

Table VII shows that the respondents of AIMSRB found access denied by the college is the major problem with 18 (36.7%) responses, followed by PIMSJ with 15 (30%) and CMCHL with 7 (18.9%) responses respectively. The respondents of GGSMCF stated that they are facing the problem of data security with 18 (40.9%) responses, followed by the respondents of SGRDIMSRA with 15 (37.5%) and AIMSRB with 14 (28.6%) responses. The problem of lack of information literacy is faced by the respondents of SGRDIMSRA with 7 (17.5%) responses, followed by GGSMCHF with 7 (15.9%) and GMCHA with 7 (15.2%) responses and further desired that more training or orientation is required to learn social media applications. The respondents of the CMCHL feel that they face the problem of cybercrime with 8 (21.6%) responses, followed by SGRDIMSRA with 8 (20%) and the respondents of PIMSJ with 9 (18%) responses. The problem of the privacy concern is highly faced by the respondents of all the colleges ranging from 30% to 65% responses. The respondents of SGRDIMSRA feel that they face the problem of unwanted intention from others with 9 (22.2%) responses, followed by GGSMCHF with 9 (20.4%) and CMCHL with 7 (18.9%) responses. Mohamed & Sumith (2011) indicated that 48.5% of the respondent found lack of privacy as the major issue and 21.6% of respondents were fear of misusing their personal information. Kumar & Kumar (2013) pointed out that 6.7% of respondents face the problem of lack of time and 5.3% lack of privacy. The study further revealed that 26.7% face the problem of poor connectivity of the Internet and 4.7% said they had a lack of technical knowledge in addition to the above problems. Bialy & Jalali (2015) indicated that 47% of the respondents had privacy issues, 34% time wasting and 11% felt that social media might not be useful for education. Lalnunpuii &Verma (2016) reported that 21% of the respondents felt lack of privacy is the major hindrance and 7% of the respondents indicated that lack of technical skills another problem which discouraging them in use of social media applications. Geetha, Savitha & Padmamma (2016) indicated that a majority of the respondents i.e. 60% found the problem of non-availability of Internet facility, 46% found lack of time and 38% felt lack of security and privacy concerns as the major problems faced by them.

V. MAJOR FINDINGS

1. A majority of the respondents i.e. 235 (69.2%) have average knowledge and awareness of computer and social media.
2. A majority of the respondents i.e. 222 (65.1%) have learned the use of the Internet and social media applications using the self-teaching method, followed by guidance from their colleagues with 116 (34%) responses.
3. The main purpose of use of social media applications is education enhancement as indicated by the majority of

the respondents with 284 (83.3%) responses, followed by use for medical information exchange with 198 (58%) responses.

4. 67.7% of the respondents from all the medical colleges under study indicated that they were fully aware of the guidance and ethical issues concerned with social media use in the medical profession.

5. 65.4% of the respondents indicated that social media provides quite a lot of relevant information for medical education and research.

6. The respondents indicated that social media is also impacting their academics as 30.5% of the respondents felt that they will prefer the traditional ways to gather medical information and 30.2% of the respondents indicated that they are unable to concentrate on teaching and learning due to increase in the use of social media applications.

7. The major problem indicated by the respondents under study that they are facing lack of privacy issues with 43.9% responses and followed by data security issues with 27% responses.

Based on the findings of the study, the following suggestions are put forth to effectively use the social media applications among teachers and students in medical colleges of Punjab

1. The librarians of medical colleges should be trained in social media applications for better and timely exchange of medical information resources to medical teachers and students for better healthcare services in the Punjab State.

2. The medical colleges should respond in a cooperative manner for the adoption of social media in the libraries and healthcare services.

3. The medical colleges should provide sufficient resources for the inclusion of social media in library services.

4. The libraries of medical colleges should have their websites with the inclusion of social media applications.

5. The medical colleges should organize workshops/ seminars or training programmes on regular interval for enhancement of skills on social media of medical teachers and students. Rather some regular courses be designed and knowledge be imparted on social media education.

6. The medical colleges should make the ethical guidance on social media and regular awareness for the same must be created among the stakeholders and institutional policies be made for fair use of these technologies for medical education, teaching and research and even for enhancement of healthcare.

7. The medical colleges should provide the technical support and guidance to the users of social media, who are interested to use it for medical education, research and for healthcare, so that may not face problems like cybercrime, data security, and privacy issues etc.

VI. CONCLUSION

The social media applications have emerged as the most powerful vehicles for the exchange of quality medical information at the choice of medical teachers and students. Social media is becoming an inseparable part of today's information-based society. The dependency on social media and its services is increasing day by day and the users of medical colleges especially teachers and students too are depending more and more on the social media for their various educational and other purposes. It is helping to enhance their academic excellence by providing them the latest information and access to the worldwide information by filling the gaps of time and place of access. The present study has highlighted the knowledge and usage of social media among the medical colleges of Punjab. The situation is not, however, very satisfactory from the library point of view. Only some libraries have started work on social media, and even this is not extended to the users. So, it should be extended to all the libraries of medical colleges. In order to make the social media more beneficial, the library staff who have acquired a good deal of efficiency in the collection, organization, and retrieval of information should feel duty-bound to see that the users are able to obtain right information at the right time. The library services supplemented by social media applications can prove a great boon to the medical teachers and students in getting the right information at the right time.

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