

Attitudes of nursing professional educators toward the use of social media as a teaching and learning tool: A survey

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Abstract

Introduction: Social media applications are opening up new window for innovative teaching, learning and research among health sciences educators. It is becoming the indispensable part of today's educational system. The use of social media is also rapidly increasing in medical education and it is important to know how these educators are using social media tools as a teaching and learning tool.

Objective: The object of this study was to assess the attitudes of nursing professional educators toward the use of social media as a teaching and learning tool in the selected research setting.

Method: The target population for the present study was 105 nursing teachers and students selected using the purposive method. A self-structured questionnaire was designed on the basis of previous studies conducted on the subject field. Altogether, 94 teachers and students completed and returned (response rate 89.15%) the questionnaire. The quantitative data, thus collected were analysed using SPSS statistical programme.

Results: The results of study show that more than 90% of the respondents were fully aware and were having knowledge of social media and its use in medical education. 51.06% respondents used the self teaching method to learn the use of social media applications. The most favorite applications of social media used by the respondents were Google+ with 73.40% responses, Wikipedia and YouTube with 38.29 % responses each, LinkedIn with 15.95% responses and Facebook with 14.89% responses. 42.56% of the respondents were of opinion that social media is a useful teaching and learning tool in nursing and medical education. The major problem while using social media applications, as indicated by the respondents is data security about which they were more concerned with 32.97% responses. The most common educational needs of nursing professional educators i.e. teachers and students include receiving more in-depth information about how to use social media, as well as more practice in using it for teaching and learning tool.

Conclusion: The use of social media applications in health sciences teaching, learning and research is increasing rapidly. Although, there is a need to closely study the useful applications with its secure use in health sciences for the more advancement of healthcare delivery so that gap of accessibility and affordability may be bridged.

Keywords: Attitude, Knowledge, Nursing educators, Health sciences education, Teachers and students, Social media.

Introduction

Social media applications are opening up new window for innovative teaching, learning and research among educators. It is becoming the indispensable part of today's educational system. The use of social media is also rapidly increasing in medical education and it is important to know how these educators are using social media tools as a teaching and learning tool. Since the beginning of human race, the human has created different ways to communicate, evolving from primitive language and markings to more recent technologies including telephones, computers and smart phones. Prior to today's technology, people developed relationships in face-to-face manner. Face-to-face interaction allows a person to respond in conversation by utilizing verbal and non-verbal clues, they receive during the conversation. The communication systems of today, allow people to interact with each other in settings that are not face-to-face. The use of telephones, computers and smart phones has paved the way for the most recent addition to communication—social media applications (Farrugia, 2013). Social media refers to the means of interactions among people in which they

create, share, and exchange information and ideas in virtual communities and networks (Ahlqvist et al, 2008). In these days, social media is becoming an integral part of our daily life. Teachers and students are regular users of smart phones, tablets, and computers for instantly retrieval of necessary medical information, to read the literature necessary for their courses, and to collect, communicate, and share information with their peers (Arnbjörnsson, 2014). Though, there are many advantages of social media applications, yet there are also some concerns related to the use of social media in health sciences education. The present social media applications are not designed and developed for the purposes of health sciences education (Dapner, 2012). Some disadvantages related to use of social media have also been reported. These disadvantages include rapid changes in the format of social media and a lack of information on the effort needed so they could be used effectively in teaching and learning (Välämäki et al, 2014).

Review of Literature

Galiatsatos et al (2016) conducted a study on assessment of use of social media for medical education and its impacts on attitude and behavior of residents. The study exhibited that residents work at variable times and are often unable to attend all scheduled educational sessions. Therefore, new a synchronistic approach to learning is essential in ensuring exposure to a comprehensive education. Social media tools may be especially useful, because they are accessed at times convenient for the learner. Thirty-five of 50 residents (70%) completed the pre-survey and 40 (80%) participated in the post survey. The results of the study shows that at baseline, 34 out of 35 residents used social media and nine specifically used Twitter. Twenty-seven (77%) used social media for medical education; however, only three used Twitter for educational purposes. After the establishment of the Twitter page, the percentage of residents using social media for educational purposes increased (34 of 40 residents, 85%), and 22 used Twitter for this purpose ($p < 0.001$ for the change). The percentage of residents using the application at least once a week also increased from 11.4 to 60.0% ($p < 0.001$). Almost all residents (38 of 40) felt that social media could be useful as a medical education tool, which slightly increased from 30 out of 35 in the pre intervention survey ($p = 0.01$). The study concluded that residents believe social media could be used for medical education. Further research should be performed to see if social media can impact overall medical knowledge and patient care, and whether longer term use is maintained. Avci et al (2015) conducted a study on faculty and students in Afyon Kocatepe University. This study assessed social media usage in medicine by medical students in Turkey. It found that 93.4% of students used social media and 89.3% used social media for professional purposes. The study also found that 95.3% used Facebook; the observed usage rates of Face book, a social networking site whose use has been investigated in many studies, ranged from 13% to 47% among physicians and from 64% to 96% among students. Ponis and Gioti (2013) attempted to explore the penetration of Web 2.0 technologies amongst Greek students, determine their level of usage and explore the students' opinions and perceptions regarding their usefulness for learning and educational purposes. It was based cross-institutional study, conducted between September 15 and October 30, 2010, on a sample of five hundred undergraduate students from the two oldest university establishments in Greece. The results revealed that social networking sites despite being by far, the most popular Web 2.0 service amongst Greek students, present the lowest perceived value in regards of the service's usefulness for educational and studying support purposes. On the other hand, blogs and wikis are considered educationally more useful by students, present low percentages of systematic use and content

contribution and even lower percentages of ownership. Madhusudhan (2012) exhibited in his study that the researchers prefer Facebook and Research Gate for the research and educational purposes. In spite of various advantages of social networking sites, it is mentioned by the respondents that the use of social media is just wastage of time. Lwago (2012) the study found that the adoption of e-learning and Web 2.0 technologies is still in its infancy in Tanzania's public universities. However, there was much enthusiasm amongst respondents for developing the potential of e-learning and Web 2.0 tools in their universities. Kindi & Alhashmi (2012) found that the factors motivating students at colleges to use social networking sites (SNSs) for educational purposes and to identify the most popular SNSs among students. The study uses a questionnaire in order to discover the reasons behind the use of SNSs by students at Shinas College of Technology (ShCT) in Oman. The study found that the major reasons for frequent use of SNSs are finding information and sharing news. The study also indicated that lack of experience as well as insufficient time and IT skills are effective factors of not using SNSs. Finally, the study discovered that Google Groups, Face book and Yahoo! 360 are the most popular SNSs used by ShCT students.

Aims and Objectives

The study was conducted to fulfill the following aims and objectives:

1. To know the level of awareness of social media among the Nursing teachers and students under study;
2. To know the use of social media among the Nursing teachers and students;
3. To know the purposes of use of use media among Nursing teachers and students;
4. To know the types of applications of social media used by the respondents and to identify the favorite application(s) of social media;
5. To know the barriers and difficulties faced by the Nursing teachers and students in access of social media applications;
6. To give suggestions for improvement and better use of social media in medical education and health care.

Research Methodology

Sample and Data Collection: The target population in this study comprises the one hundred and five (105) nursing faculty members, undergraduate and postgraduate students of Adesh University, Bathinda, Punjab selected using the purposive sampling method for the current study. In this study, the following social media forms were included: blogs, wikis, YouTube, Twitter, Google+, LinkedIn and Facebook etc, because they are the most popular forms of social media in

India. The data were collected at the end of the year 2017.

Questionnaire: The survey method was used in this study. A structured questionnaire was distributed to collect the necessary primary data from the target population. This questionnaire was developed on the basis of studies done in earlier publications. The questionnaire was pilot tested with ten nursing teachers and students (five each) before the collection of data. The questionnaire was revised after the pilot study by clarifying meanings.

Interview: The respondents interviewed to fill the gap(s) in their responses.

Scope of the Study: The scope of the present Study is limited to the following:

Nursing teachers and students of Adesh University, Bathinda, Punjab, India.

Results

The results are presented under the following aspects:

This section is divided into two sub-sections. Sub-section one contains the demographic information and sub-section two presented the knowledge, attitude and use of social media by the respondents under study.

Part A: Demographic information

Table 1: Gender-wise distribution of respondents

Gender	N	%
Male	02	02.13
Female	92	97.87
Total	94	100

Table 1 shows the gender-wise distribution of the respondents, which clearly depicts that in the present study female are in majority with 97.87% responses and only small percentage i.e. 2.13% are male respondents.

Table 2: Age-wise distribution of respondents

Age-group	N	%
15-20	24	25.53
21-25	54	57.44
26-30	12	12.76
More than 30	04	4.25
Total	94	100

Table 2 shows the age-wise distribution of respondents and majority of the respondents belong to 21-25 age group with 57.44% responses, followed by 15-20 age group with 25.53% responses. 12.76% of the respondents are of 26-30 age group and only 4.25% are in more than 30 age group.

Table 3: Status-wise distribution of respondents

Status	N	%
Teachers	17	18.08
Students	77	81.91
Total	94	100

The table 3 shows the status-wise distribution of respondents. 81.91% students and 18.08% teachers participated in the present study.

Part B: Social media, knowledge, attitude and use

Table 4: Computer training/ certificate/ diploma/ short term course participated

Participation in Training Course	N	%
Yes	14	14.89
No	80	85.10
Total	94	100

The results of table 4 reveal that only 14.89% of the respondents has attended or participated in some type of computer certificate/ diploma or short term computer training courses and 85.10% have not taken any formal computer training.

Table 5: Computer/ laptop/ smart phone at home

Availability of computer/ laptop/ smart phone	N	%
Yes	92	97.87
No comment	02	2.13
Total	94	100

Table 5 revealed that 97.87% of the respondents have computers, laptops or smart phone devices to access internet and social media and other devices at their home and only 2.13% respondents have checked the no comment option.

Table 6: Level of computer/ smart phone/ social media literacy

Level of social media literacy	N	%
Expert	17	18.08
Average	76	80.85
Below Average	01	1.07
Total	94	100

Table 6 shows that a majority of the respondents i.e. 80.85% has average social media literacy, followed by 18.08% as expert level and only 1.07% has indicated below average level of social media literacy.

Table 7: Internet connection on phone or at home

Internet Connection	N	%
Yes	91	96.80
No	03	3.20
Total	94	100

Table 7 depicts that 96.80% of the respondents have internet connection on phone and 3.20% do not have internet connectivity at their phones or on computers.

but they use the social media applications at other places.

Table 8 Method of learning of internet and social media applications

Method	N	%
Guidance from colleagues	17	18.08
Guidance from teachers/ students	10	10.64
Trial and error	17	18.08
Self taught	48	51.06
Guidance from Computer/ Library Staff	02	2.13
Total	94	100

Table 8 shows that a majority of the respondents i.e. 51.06% learned the internet and use of social media applications by self teaching method, followed by trial and error and guidance from colleagues with 18.08% responses each. 10.64% of the respondents indicate that they took the guidance from their teachers/students. Only 2.13% of the respondents have taken guidance either from computer staff or from library staff.

Table 9: Frequency of use of social media applications in learning

Frequency of social media usage in learning	N	%
Daily	59	62.76
More than three times in a Week	15	15.95
Twice in a Week	11	11.70
Weekly	09	9.57

Table 9 shows that a majority of the respondents i.e. 62.76% use the social media applications for learning on daily basis. There are 15.95% respondents who use social media for more than three times in a week 9.57% and 11.70% use twice in a week. Further, there are 9.57% respondents who use social media applications on weekly basis.

Table 10: No. of hours spent daily on social media

Hourly usage of social media	N	%
Less than 30 minutes	16	17.02
1-2 hours	43	45.74
2-4 hours	12	12.76
More than 4 hours	25	26.59

The table 10 revealed that a highest percentage of respondents i.e. 45.74% spend 1-2 hours daily, followed by 26.59% who spend more than 4 hours on social media. There are 17.02% respondents who spent only less than 30 minutes to access social media. 12.76% of the respondents spend 2-4 hours in use of social media applications on daily basis.

Table 11: Aware of ethical guidance for health professionals for using social media

Awareness of ethical guidance for using social media	N	%
Yes	89	94.68
No	05	05.32
Total	94	100

It is evident from table 11 that a majority of the respondents i.e. 94.68 % are aware of ethical guidance for using social medical as medical professional. There are only 5.32% respondents who has indicated that they are unaware about ethical guidance about use of social media.

Table 12: Social media resources used in medical education

Social media resources used in medical education	N	%
YouTube	36	38.29
Twitter	01	1.06
Face book	14	14.89
LinkedIn	15	15.95
Skype	01	1.06
Orkut	06	6.38
Slide share	08	8.51
Bloglar	01	1.06
Wiki	36	38.29
Google+	69	73.40

Table 12 shows different types of social media resources and applications used by the respondents of the present study. It was found that majority of the respondents use Google+ with 73.40% responses, followed by Wikipedia and You Tube with 38.29 % responses each. LinkedIn is used by 15.95% respondents and Facebook by 14.89% respondents. More than 8% respondents use the slide share application, followed by Orkut with 6.38% responses, and further followed by Skype, Twitter and Bloglar with 1.06% responses each.

Table 13: Purposes of using social media sites

Purpose	N	%
Educational/ Knowledge enhancement	53	56.38
Research	36	38.29
To find useful information	45	47.87
Professional activities	18	19.14
To make new friends	08	8.51
Giving feedback to friends	04	4.25
To spend time	14	14.89
Sharing photos /files/videos	14	14.89
Promoting thoughts	08	8.51
Others	05	5.31

Table 13 shows that a majority of the respondents i.e. 56.38% use social media sites for educational purposes, followed by 47.87% respondents who use social media for finding useful information, and further by 38.29% for research purposes. 19.14% use social media for professional activities and 14.89% each for sharing their files/ photos/ videos and to spend time. There are 8.51% of the respondents who use social media for making new friends and same percentage for promoting thoughts. 5.31% of the respondents have indicated that they use the social media applications for other purposes.

Table 14: Experience in using social media sites

Experience in using social media sites	N	%
More than 2 years	60	63.82
1-2 years	28	29.78
6 months	02	2.13
Less than 6 months	04	4.25
Total	94	100

The respondents were asked to exhibit their experience of using the social media sites. Table 14 shows that there are 63.82% of the respondents who have more than two years of experience in using social media sites followed by 29.78% respondents who have 1-2 years of experience. There are 4.25% respondents who have less than 6 months of experience and 2.12% who have six months of experience in using social media sites.

Table 15: Use of social media in medical education

Use of social media in medical education	N	%
Usefulness	40	42.55
Easy to use	27	28.72
Improve the quality of healthcare	37	39.36
Creative and innovative	12	12.76
Ethical issues	27	28.72
Unauthentic information	03	3.19
Social media is waste of time	12	12.76
Addiction to social media	15	15.95
Unable to concentrate on study	27	28.72

Table 15 shows that 42.56% of the respondents are of opinion that social media is useful in nursing and medical education. 39.36% of the respondents are of view that social media is helpful to improve the quality of healthcare. 28.72% also find it easy to use to disseminate medical education to the masses and on the other hand similar percentage of the respondents are of view that it is not free from ethical issues. There is similar percentage of the respondents i.e. 28.72% who have explained that they are unable to concentrate on study due to use of social media applications. 15.95%

of the respondents indicated that social media applications are also responsible to create addiction. 12.76% of the respondents also indicated that social media applications are very creative and innovative for medical education and similar percentage is also of view that social media is waste of time.

Table 16: Use social media application sites late night hours

Use of social media application sites late night hours	N	%
Never	11	11.70
Sometimes	68	72.34
Most of the times	15	15.96
Total	94	100

Table 16 shows that a majority of the respondents i.e. 72.34% use social media applications late night hours sometimes. 15.96% of the respondents indicated that they most of the times access social media sites at late night hours. There are respondents who indicated that they never use social media at late night with 11.70% responses.

Table 17: Problems faced while accessing social media sites

Problems faced while accessing social media sites	N	%
Access denied by the college	12	12.76
Data security	31	32.97
Lack of information literacy	10	10.63
Cyber crime	04	4.25
Privacy concern	16	17.02
Unwanted intension from others	24	25.53

Table 17 shows that 32.97% of the respondents faced the problem of data security, followed by unwanted intension from others with 25.53% responses and further followed by privacy problems faced with 17.02% responses. 12.76% indicated that they face the problem of permission of use in college as the college denied the access of social media sites. 10.63% of the respondents indicated that they have lack of information literacy and only 4.25% faced the problem of cyber crime.

Table 18: Is social media be part of library tools to provide more user friendly services?

Social media in library	N	%
Yes	90	95.74
No	04	4.25
Total	94	100

The results of table 18 revealed that 95.74% of the respondents were of opinion for inclusion of social media applications as library tools to provide more user friendly services and only 4.25% do not want so.

Major Findings

The major findings of the present study are:

1. 97.87% respondents of the survey are females.
2. 57.44% of the respondents are fall in 21-25 age group, followed by 15-20 age group with 25.53% responses.
3. Majority of the respondents are students (81.91%) and followed by teachers (18.08%).
4. 85.10% of the respondents have not taken any formal computer/ social media training.
5. 97.87% of the respondents have computers, laptops or smart phone devices to access internet and social media and other devices at their home or work places.
6. Majority of the respondents i.e. 80.85% has average social media literacy, followed by expert level with 18.08% responses.
7. 96.80% of the respondents have internet connection on phone or other social media accessing devices.
8. Majority of the respondents i.e. 51.06% learned the internet and use of social media applications by self teaching method, followed by trial and error and guidance from colleagues with 18.08% responses each.
9. 62.76% use the social media applications on daily basis.
10. 45.74% spend 1-2 hours on social media applications on daily basis.
11. 94.68 % are aware of ethical guidance for using social medical as medical professional.
12. Google+ is the most favorite social media application with 73.40% responses, followed by Wikipedia and You Tube with 38.29 % responses each.
13. 56.38% use social media sites for educational purposes, followed by 47.87% respondents who use social media for finding useful information, and further by 38.29% for research purposes.
14. Majority of the respondents have more than 2 years of experience in using social media applications with 63.82 % responses.
15. 42.56% of the respondents are of opinion that social media is useful in nursing and medical education.
16. 39.36% of the respondents are of view that social media is helpful to improve the quality of healthcare.
17. 28.72% who have explained that they are unable to concentrate on study due to use of social media applications.
18. 15.95% of the respondents indicated that social media applications are also responsible to create addiction.
19. 72.34% use social media applications at late night hours sometimes, followed by 15.96% of the respondents who use social media sites at late night hours.

20. 32.97% of the respondents faced the problem of data security, followed by unwanted intension from others with 25.53% responses.
21. 95.74 % of the respondents were of opinion for inclusion of social media applications as library tools to provide more user friendly health information services.

Suggestions: On the basis of results of the study, following suggestions are set forth for further advancement in social media applications as per the requirements of health sciences education, so that these applications be used to better healthcare education and delivery:

1. Thus definition of a training policy to guide and direct the proper use of social media is fundamental to moral development. Health sciences professionals must be aware of their responsibilities when using social media tools and should be involved in discussions looking into the ethical aspects of their use (Englund et al., 2012) (Santoro,2011).
2. There should be proper trainings/ courses designed to educate the health sciences professionals and the designed education should be student-centred. Student orientation is an important point that should be paid special attention to in the development of education. To develop education student-centered further research is required to identify the most widely used applications. Even though social media applications are widely used in free time, it needs different kinds of skill levels not only from teachers but also from students to use these applications in studies. Social media enables students to work independently, but it also allows extensive networks between students. The utilization of technology in education should be understood as an opportunity, not just the technology itself. In this way, we can enable deep learning and learning development (Tuominen, Stolt & Salminen, 2014).

Conclusion

The use of social media applications in health sciences teaching, learning and research is increasing rapidly. Although, there is a need to closely study the useful applications with its secure use in health sciences for the more advancement of healthcare delivery so that gap of accessibility and affordability may be bridged. Further, there is also clear need to add the social media education and training into health sciences education in near future. It is required that future research on the field is to be conducted to show more preciously in what ways social media is used in health teaching, learning and research and how it could be embedded into their working life (Lahti, Haapaniemi-Kahala & Salminen, 2017).

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