

INVESTIGATING THE USE OF SOCIAL NETWORKING SITES FOR DENTAL EDUCATION BY STUDENTS: A REGIONAL SURVEY

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ABSTRACT

Aim: The use of social networking sites (SNSs) for teaching and learning purposes is increasingly being developed in the field of dentistry. This study aims to investigating of the use of SNSs for dental education by students.

Materials & Method: In this descriptive study the population of study consists of the general students of the faculty of Dentistry of Ahvaz Jundishapur University of Medical Sciences (AJUMS) located in south west of Iran. Sampling was practiced through census and by distributing questionnaires between all cases. Totally, 109 cases (64 females and 45 males) filled the questionnaire. Data was analyzed using SPSS 22.

Results: Our findings suggest that 95% of cases have access to social media, via their smartphone and acknowledge its usefulness in the education field. Telegram: 54(50%), WhatsApp: 28(26%), Viber: 8(7%), Facebook: 5(5%), Instagram: 2(2%), others: 12(11%) are the most frequent used for students. Also dental students used SNSs mainly to post opinions (33%), share videos (92%), chat (81%), engage in medical education (72%), take surveys (19%), and play games (15%). There was a positive correlation between the use SNSs for general purposes and the use of them for learning purposes. In addition, the correlation between age and the use of SNSs for general purposes and between age and the use of SNSs for learning purposes is negative.

Conclusion: Ideally, universities of medical sciences should integrate social media education and policies into curricula to ensure that students are making the most of these digital assets and are doing so with the least possible risk.

Key words: Dentistry, Iranian, Learning, SNSs, Students.

Introduction

Dentistry is one of the most interested academic majors in Iranian and many other countries universities.¹ The use of smartphone is increasingly being developed for caring, teaching and learning purposes. However, the use of smartphones and their diverse capabilities depends on many factors such as availability of proper software and hardware and accessibility of high speed Internet.² Today, the application of smartphones in teaching process, especially teaching medicine is well known and it is used as an effective learning device in any place and at any time.³ The students of medical sciences and dentistry as well as their professors use many applications associated with their profession and field of study for clinical and learning purposes.⁴ Social media is an asset that higher education students can use for an array of purposes. Studies have shown the merits of social media use in educational settings.⁵ Social media facilitates information sharing, including user-generated content, and has transformed the way we communicate. As of 2010, The Millennial Generation, individuals born between 1980 and 2000, comprised the major users of social media, with approximately 75% having a personal social networking page (eg, Facebook profile) and 61% perceiving sharing of personal data and images through social media as positive.⁶

Ozdalga *et al* conducted a review study from 2011 and 2012 and reviewed 60 studies and stated the positive role of smartphones in the promotion of the learning of the students of medical sciences.⁷ Giordan *et al* conducted a review study from 2000 and 2016 and reviewed 10 studies and stated the positive role of WhatsApp messenger as an adjunctive tool for telemedicine of medical sciences.⁸ O'Sullivan global, interdisciplinary study demonstrates that

a significant number of students across all health science disciplines self-reported sharing clinical images inappropriately, and thus request the need for policies and training specific to social media use in health science education.⁹ El Bialy *et al* conducted a study and stated the positive role of social networking sites (SNSs) in the promotion of the learning of the Between Medical Students and Medical Educators of medical sciences.¹⁰ Jamal *et al* conducted a study on the Saudi Arabian students of different medical sciences and indicated the positive role of social networking sites (SNSs) in clinical teaching and educational interactions between medical staff.¹¹ However, with the growing amount of time that youth are spending on social networking sites (SNSs), do universities of medical sciences consider these sites to be of educational value? The purpose of this study is to investigating of the use of SNSs for dental education by students.

Materials and Method

This is a descriptive study conducted in period 2016-2017 to evaluate AJUMS dentistry students' use of SNSs for dental education by students. The study tool is the research-made questionnaire of Wrang *et al* study distributed between Australian dentistry students.¹² The validity and reliability of the questionnaire was confirmed in our study following customization and making slight changes in it. Ahvaz Jundishapur University of Medical Sciences (AJUMS) located in south west of Iran is active with 650 faculty members, 7000 students studying at bachelors, masters and PhD levels, fellowship and higher degrees in 163 different fields and 15000 staff. The university is one of the most prestigious universities in Iran according to the standards of ministry of health and medical education.¹³ The population of study consists of all general students of

the Dentistry Faculty of Ahvaz Jundishapur University of Medical Sciences (AJUMS). Currently, a total number of 264 students (157 females and 107 males) are studying in the general level in the Dentistry Faculty of the university. Sampling was practiced using census method and by distributing the questionnaire between all cases of which 109 cases (64 females and 45 males) filled it. Data was analyzed by frequency, mean, percent, Mann-Whitney and Spearman's correlation coefficient in SPSS 22.

Results

Table 1 shows the demographic information of the cases. A total number of 109 students participated in this study, where 59% were female and 41% were male. In addition, 79% of cases were single and 21% were married. Regarding smartphone type, 77%, 18%, 3% and 2% of cases had Android, iPhone, Windows phone and BlackBerry smartphones.

Variables	No. & Percentage of Individuals
Gender	***
Male	(45) – 41%
Female	(65) – 59%
Total	(109) – 100%
Marriage	***
Single	86 - (79%)
Married	23 – (21%)
Total	109 – (100%)
School Year	***
1	1
2	33
3	30
4	21
5	7
6	13
No Answer	3
Total	109
Age (Years)	***
≤ 20	17
21 – 25	85
26 – 30	5
31 – 35	5
36 – 40	1
41 – 45	1
Total	109
Smart Phone Type	***
Android	84 (77%)
i Phone	20 (18%)
Windows Phone	3 (3%)
Blackberry	2 (2%)
Total	109

Table 1: The information of the participants

Table 2 shows the dental students used SNSs mainly to post opinions (33%), share videos (92%), chat (81%), engage in

medical education (72%), take surveys (19%), and play games (15%) (Table 2).

Item	Smartphone use questions	% of individuals
1	Medical education	72%
2	Play games	15%
3	Chat	81%
4	Share videos	92%
5	Post opinions	33%
6	Take a surve	19%

Table 2: Dental Students use of Social Networking Sites (SNSs)

Table 3 shows the role of social media in learning. Totally, 95% of cases have access to social media through their smartphone and knows it beneficial for learning purposes. According to the cases, Telegram, WhatsApp, Viber, Facebook, Instagram and other social media contribute to 50%, 26%, 7%, 5%, 2% and 11% of learning, respectively. [Table 3]

Item	Social media use questions	% of individuals
1	Telegram	50%
2	WhatsApp	26%
3	Viber	7%
4	Facebook	5%
5	Instagram	2%
6	Other social media	11%

Table 3: The role of SNSs in learning

Which one of the following applications is frequently used by you for educational and learning purposes? Telegram: 54(50%), WhatsApp: 28(26%), Viber: 8(7%), Facebook: 5(5%), Instagram: 2(2%), others: 12(11%)

Table 4 shows dental students frequency of logging into social networking sites (SNSs) for educational purposes. According to the cases, home, different places of university, through the way (for example in bus), library, amphitheater, working times in laboratory and other places contribute to Lost count 45%, Few times a day 15%, Every hour 16%, Few times per hour 8%, Daily 7%, Few times per week 3%, Once per month 3%, 3%, Few times per month 2% and Rarely 1% is frequency of logging into social networking sites (SNSs).

Item	Frequency of logging into SNSs	% of individuals
1	Lost count	45%
2	Few times a day	15%
3	Every hour	16%
4	Few times per hour	8%
5	Daily	7%
6	Few times per week	3%
7	Once per month	3%
8	Few times per month	2%
9	Rarely	1%

Table 4: Dental Students frequency of logging into social networking sites (SNSs)

Spearman's correlation coefficient shows that there is a positive correlation between the use of social networking sites (SNSs) for general purposes and the use of it for learning purposes (0.382). In other words, as a student's use of social networking sites (SNSs) for general purposes increases, his/her interest to the use of it for learning purposes significantly increases ($P < 0.01$). In addition, there is a negative correlation between age and the use of social networking sites (SNSs) for general purposes and between the age and the use of social networking sites (SNSs) for learning purposes (-0.286). This means that as age increases the interest of students to the use of social networking sites (SNSs) for general and learning purposes significantly decreases ($P < 0.05$). Moreover, females and males as well as single and married cases were compared in terms of the use of social networking sites (SNSs) for learning purposes using Mann-Whitney test and there was no significant difference between the groups.

Discussion

This study showed that dentistry students widely use social networking sites (SNSs) for learning and educating courses. In addition, 95% of cases have access to social media through their smartphones and acknowledge the beneficial role of social media in education. According to the studied cases, Telegram and WhatsApp are the most frequent used applications for learning and educational purposes, respectively. This agrees with the results of Jamal *et al*,¹¹ Malka *et al*,¹⁴ Goyder *et al*,¹⁵ Tran *et al*,¹⁶ Khanna *et al*,¹⁷ Johnston *et al*,¹⁸ Giordano *et al*,¹⁹ and Anyanwu *et al*.²⁰ However, some social media, including Facebook and Twitter, are censored in Iran and can be accessed only by proxy sites.

Finally, the majority of cases believe that their social networking sites (SNSs) have improved their access to the content of course and educational contents. In addition, they believe that their social networking sites (SNSs) help them in having a more independent learning process. The cases believe that professors should pay more attention to the use of social networking sites (SNSs). This agrees with Ozdalga *et al*,⁷ Giordano *et al*,⁸ O'Sullivan *et al*,⁹ El Bialy *et al*¹⁰ and Jamal *et al*¹¹ studies.

Conclusion

Although social media is being used for learning purposes by most health science students across the globe, many do so without appropriate training. Also, a high rate of inappropriate posting of content without explicit permission was self-reported, thereby jeopardizing patient confidentiality and the student-patient relationship. Meanwhile, students are receptive to training in social media use, and having faculty's support can facilitate increase in social media usage for enhancement of education. Faculty clearly has an important role to play in ensuring social media's safe use by students. Ideally, staff should integrate social media education and policies into curricula to ensure that students are making the most of these digital assets and are doing so with the least possible

risk. Our findings suggest that training programs to engage students in social media policy with clear benefits of social media in health science be made and implemented in institutions around the world. The training should include guidance on how and when to report a breach of the policy, along with consequences of breaking the rules. By implementing a training program, it is envisaged more students would not only be aware of and adhere to the policy but also know how social media can be used in an effective and safe manner for the ultimate benefit of patients.

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