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Social Network Sites as Educational Factors

Alireza Ebrahimpour[1],
Farnaz Rajabali[2], Fatemeh
Yazdanfar[1], Reza Azarbad[3],
Majid Rezaei Nodeh[4], Hasan
Siamian[5*], and Mohammad
Vahedi[6]

[1]School of Dentistry, Student
Research Committee, Mazandaran
University of Medical Sciences, Sari,
Mazandaran, Iran
[2]School of Pharmacy, Mazandaran
University of Medical Sciences, Sari,
Mazandaran, Iran
[3]School of Medicine, Iran University of
Medical Sciences, Tehran, Iran
[4]Golestan University of Medical
Sciences, Gorgan, Golestan, Iran
[5]School of Allied Medical Sciences,
Mazandaran University of Medical
Sciences, Sari, Mazandaran, Iran
[6]School of Medicine, Mazandaran
University of Medical Sciences, Sari,
Mazandaran, Iran

**Corresponding author: ass. prof. Hasan
Siamian, School of Allied Medical Sciences,
Mazandaran University of Medical Sciences,
Sari, Mazandaran, Iran. E-mail:siamian46@
gmail.com**

ABSTRACT

Background: in this present era, the technology development has established certain type of communication. Nowadays education as the fundamental principle in transferring cognition to the learners has found various methods. Recently the concept that social networks could be effective tool in easing the achievement to the educational goals has been under attention. Therefore, this investigation is trying to find out whether, the social networks could play role on the process of education among students? **Materials and Methods:** This cross sectional descriptive study was performed on 1000 students from 7 medical universities in 2015. The data collection tool was questionnaire that was approved **Cronbach's alpha** was 0.85. Meanwhile its validity was confirmed too. The obtained data were analyzed by the descriptive statistic, ANOVA, Turkey and used X^2 SPSS-19. **Results:** In this investigation, 940 subjects were under study. 85% used daily the social network. The highest usage was attributed to the Telegram. 52% preferred image suitable for transferring of information. Even though, 73% believed that these networks have significant effects on coordinating of students with in university charges. **Conclusion:** Considering the findings of the present study, it is proposed that the universities integrate the social networks in the education programs and recognize it as the awareness factor, therefore benefit it in the educational affairs.

Key words: Social Network Sites, Education, Student, M-learning, Mazandaran, Sari, Iran.

1. INTRODUCTION

Human from the late ancient have tried to make communication with his environment, because of his mental and coexistence dependency to the alike made him to communication. This need encourages him to establish social organization and cultured groups, and enjoy the advantages of simple access to the information Experiments and social supports (1). Since their introduction, social network sites (SNSs) such as MySpace, Facebook, Cyworld, and Bebo have attracted millions of users, many of whom have integrated these sites into their daily practices. Beginning in September 2005, Facebook expanded to include high school students, professionals inside corporate networks, and, eventually, everyone, This need is part of human intrinsic characteristics and with time and development would be felt more and more (2). At the present era, the technology development created certain type of the issues that encompasses all of the humans at any age.

Education to the more specialized level is learned at the schools, universities and the educational centers. Today, the education as a foundation, in convey of the material matters to the learners follows different methods. At present, education is done by attending in the class and sitting on the bench and listening to the instructor (3). Scholars are documenting the implications of SNS use with respect to schools, universities, and libraries. For example, scholarship has examined how students feel about having professors on Facebook (2). In spring of 2006, a survey was conducted in two large courses at a mid-sized public research university to understand how contact on Facebook was influencing student perceptions of faculty (4). Academic communities are places where intricate hierarchies, rich organizational traditions, and interpersonal ties are supported through the use of many different communication channels (5). The increasing development of technology has changed the learning

and education methods (6). Also the expanded use of Internet and increase of connection to the website in the previous years resulted to the new method of educational system named as corresponding education or distance learning. When there is social feeling of responsibility in a society and the people be in a contact with each other through strong web communication in a group and association, high level of learning and insight development would be observed (1) The incorporation of technology into teaching and research is one of the most important challenges for education today. It is time to move beyond the walls of our classrooms to join forces with other institutions and societies to revitalize education (7). One of the development tools is the Internet, the network that dominates the individual's communications and it seems that it could affect the educational process of the students. Studies show that the technology and the media about the education provide the possibility to learn with more speed and be pleased with learning (3). Social media is a term that is broadly used to describe any number of technological systems related to collaboration and community (8). While it appears that a specific definition may be elusive (9), social media is often described by example. Social networking sites, blogs, wikis, multimedia platforms, virtual game worlds, and virtual social worlds are among the applications typically included in recent illustrations (10). The first recognizable social network site launched in 1997. SixDegrees.com allowed users to create profiles, list their Friends and, beginning in 1998, surf the Friends lists. Each of these features existed in some form before Six Degrees, of course (11). The ubiquity of social media (e.g., Facebook, Twitter) is no more apparent than at the university. Social media are increasingly visible in higher education settings as instructors look to technology to mediate and enhance their instruction as well as promote active learning for students. Many scholars argue for the purposeful integration of social media as an educational tool (12).

The American society for training and development (ASTD) reported that training with the help of teacher has declined 38% from 1999 to 2006. While in the same time period it was stated that, there was 26% increase in using technology for educational purpose and reached to 40% of the time *Mobile learning, Mobile phone, Electronic learning, Tehran University* (3). 83% of the individuals using online social networks were in age range of 18-29 years, of them 61% used daily. The users with age range of 50 to 64 years increased two times, that is 25% in 2009 to 51% in 2011 (13). Ghamari and et al, in their study on 469 of medical students stated that in average they spend 3.87± 4.63 hours working with computer per day and 3.46+ 3.36 hours in the Internet. Of them 48.4% for scientific research, 20.5% for game, 9.8% visiting e-mail, 6.5% following political and social news, 5.6% spending chatting (14).

In a study by Asemi at the Isfahan University of Medical sciences it was found that in average 15% of the study subjects spend hours per day on Internet, 76% for two hours and 29% one hour on Internet. Also, 66% use Internet daily (15).

The latest statistics from Iranian users of the Internet shows that the Internet penetration rate in Iran reached 49.13 percent and Internet connections through ADSL technology, among other connections accounted for the largest share. Meanwhile, the Mazandaran province has the most Internet users in Iran. The Mazandaran province (Northern Iran) with the penetration index of 86.77 of Internet in 2010 ranked the first of Internet users (16). In terms of communication, wireless computers and PDAs are mostly used for text message communication, but mobile wireless phones can be used for voice communication. Good communications between students and professors improve teaching and learning (17, 18). Also in 2007 it was found that online Internet has positive effect on social reliance in the individual's social life (19-21). The social networks such as Telegram, Viber, Instagram and Whatsapp are popular with innumerous users. Therefore, considering the statistically obtained data, knowing the age of Internet users, the comprehensive speed and the percentage of Internet penetration in Iran. These networks could be used for information and medical education particularly to the medical students who are at the young age. Hence, this study tries to investigate that whether, the social networks could effect on the students' education process. It is hoped that these networks be used as the correct information resources and medical teaching in order to improve the medical science knowledge and the consent of the Internet.

2. MATERIALS AND METHODS

This descriptive and cross-sectional applied study was designed to investigate the rate of using the Viber, Telegram, Whatsapp, Instagram and Line by the students studying at the Mazandaran, Babol, Tehran, Golestan, Mashhad, and Rafsanjan universities in 2015. The subjects under study were in all 6000 students from Mazandaran and Babol Universities of Medical Science, Tehran University dental students registered in 2011, Iran Medical Science University, Paramedical students of Golestan Medical science. The dental students of Rafsanjan and Mashhad University. The confidence level in this study was considered 95%and the accuracy was equal to 0-04. Therefore, in all, the required sample size was equal to 739, but more confidence and validation of the study 1000 subjects were examined. Of them, 60 questionnaires were excluded due to containing in correction date.

The criteria of entering this study were using these soft wares in their mobile cell. Sampling was done by simple randomized method. The data were collected in field through filling of questionnaire. The questionnaires with incorrect data were excluded from the study. The questionnaires were filled up within one week after distribution and give back to the researcher at Mazandaran University of Medical science. At the Babol University of Medical science the questionnaires were given randomly to the students at the university campus at the early morning and received at the noon of the same day. At the other universities under study the questionnaires were emailed to the co-workers and instructed about filling of the questionnaires, they distributed the questionnaires to the students. After within two weeks the questionnaires were filled up and sent to us. The questionnaire comprised three types of questions designed in three sections. First consisting the demographic features like gender, age, educational subject, and the university. Second section with 6 questions on the history of using the social network, the type of the software being used. The groups by considering the scientific content differentiating the software, number of the groups containing the health information in all softwares, and also type of the

message that the users and intend to read and such as text, picture, voice or short film were evaluated. Third section with 8 questions, asking the students about their viewpoints about the effect of software on education on the Likert Scale rating from very much to very low. Of these 8 questions: the first question on the role of these softwares on solving the student's lessons problems; the second, the third and eighth on the effect of these networks on all life aspects of the students under study; the fourth, fifth and sixth questions about the effects on training and explanation of the colleges teaching subjects; the seventh question, on the role of these networks as the educational factor was evaluated. The questionnaire was designed by the researcher of the present paper, and provided to Mazandaran University of Medical Science faculty members with relevant experience. The reliability was approved. The α-cronbach method was used to evaluate the validity. Therefore this index for the second section of the questionnaire obtained 86% and for the questions answered by Likert Criteria was 85% indicating the valid durability of the present study. SPSS version 19 was used for the statistical analyses.

3. RESULTS

In this study 940 samples (59% female and 41% male) were collected, of them 14% less than 7 months, 21% between 7-12 months and 65% more than one year used the social networks. Also 85% used daily the social networks, 7% every 2 to 3 days once, 8% of them between weeks to one month. The percentage and number social network users who are members of scientific groups by differentiating the software are given in Table 1. Telegram had the highest usage followed by Viber and Whatsapp. In this study 513 used the Telegram, which steed the first. The obtained data on the effectiveness of the social networks in solving the student's problems orderly were rated as follow: very much (12%), much (16%), moderate (34%), low (22%) and very low (16%). In mention in sending massage in number were as follow: image, 493 (52%); text, 262 (27%); clip, 157 (16%) and the lowest interest at rebutted to the voice in 28 (2%). Our finding revealed that 73% of the study subjects believed that these networks have significant to effect in creating coordination among the students with the within university changes. In rate of awareness towards the authorship limit at the university these networks played significant role (72%). The viewpoints of the study subjects about the role of the social networks on introducing the educational regulation and curriculum planning and correct identification of lesson priorities were 46% and 49% respectively. From the viewpoints of the study subjects, these networks have intermediate effect as educational factors and the role of consent was 56%. The students from different faculties filled up the questionnaire were as follow: dentistry, 300 (32%); medicine, 180 (19%); pharmacy, 50 (5%); nursing and midwifery, 141 (15%) and paramedical, 269 (29%).

We used the Chi-square test to answer the hypothesis whether there is relationship between the educational subjects and the number of the social network users. In this regard the findings revealed that there is statistically significant relationship between education subject and using of the Telegram, Viber, Line and Whatsapp applications. P-value <0.001 and the value at the level of 0.05 is significant. In evaluating

The type of social network	The number of social network users (%)		The number members in scientific group 0 1-5 6<=	
WhatsApp	681(%72)	375(%55)	293(%43)	13(%2)
Line	477(%51)	348(%73)	124(%26)	5(%1)
Instagram	604(%64)	211(%35)	205(%34)	188(%31)
Viber	715(%76)	322(%45)	372(%52)	21(%3)
Telegram	797(%85)	287(%36)	470(%59)	40(%5)

Table 1. Percentage and number social network users who are members of scientific groups by differentiating the software

Application	Line	Viber	Instagram	WhatsApp	Telegram
p-value	0.262	0.351	0.483	0.920	0.172

Table 2. The study of the difference between the scientific groups in different disciplines in the applications

the correctness of the similar claims and lack of the subjects' membership in the different disciplines, the one way analysis of variance for each application based on the different discipline was used. The obtained P value in the study of the dissimilarity between the scientific groups in different disciplines in the applications is given (Table 2): Therefore considering the above table, all of the P-value is greater than 5%. Therefore the claims on the similarity of the membership in different discipline are rejected. In studying the correctness of the claim on the dissimilarity of the individuals under study membership in the health and medical groups in different discipline, the one way analysis of variance was tested (ANOVA). The obtained P-value was 0.04 (P=0.04) which is lower than 5%. Therefore the zero hypotheses are rejected, and on the other words, there is significant difference between the mean of the users among the health and medical groups in different disciplines. The Turkey test was used to clarify this difference. The Turkey test indicate significant difference between the rate of membership in the health and medical groups in the dentistry and paramedical disciplines, the P-value in this test for the comparison between two disciplines is equal to 0.026 which is lower than 5%. Therefore these two means are different. But insignificant difference is found between the mean of the users from another medical health discipline in two by two mean comparison of the discipline.

4. DISCUSSION

Hepp et.al (2004) emphasizes that there is no a global and absolute reality in using of the social networks in education (22). In developing countries using of technology in learning should be combined by the traditional methods like using the radio to give better results (23). Considering the findings of the present study, students believe that the social networks have no significant effect on the education process. The reason is that the universities and educational institutes did not take the application of the social networks serious affairs in education. In this regard Asgari and Khaghanizadeh stated that, considering the general advantages of the multimedia and their efficiency in the medical education it seems that integration of the social networks in the educational process of the medical universities, that is, the traditional method combined with distance learning would be beneficial and inevitable (24). Data of the present study, and according to the findings of Siamian et al indicating the majority of the faculty members have had positive attitude towards using of Internet in medical education (25). Therefore knowing this

fact and referring to our findings it could be stated that the common use of these networks among the faculty members is high. Therefore this potential could be applied in more development of the science. Hoseyni et al., in their report concluded that the faculty members could use social network for improvement of education and self sufficiency of the nursing students (26). Majority of the study subjects stated that the social networks have significant role in coordinating the students with university changes which agrees with the data given by Afrasyabi showing the social networks through providing the faculties of connecting to the other scientific centers based on mutual understanding communication and providing tools for establishing of a new society directly and indirectly could be effective science management process (27).

In the questionnaire one of the applied items were asked and about 50% of them agreed that these social networks could be used for more comprehensive learning. Our findings agree with the data given by Cheragh Molaei et al stating that the social networks are useful in electronically learning process management and also agree with findings of Cheragh Molaei et al (28, 29).

5. CONCLUSION

Training and teaching are the main issue of human today that requires the tools and proper method. This study was diagnosed and performed in order to find out the attitude of students towards the using of the social networks in the educational system and knowing the rate of using Internet. The obtained data indicate that it is possible to use the networks for educational purpose as tool for paper teaching. Therefore it is recommended that universities for better introduction of the lesson and the related to it such as presenting educational curriculum and presenting of the lesson in brief and expressing the significance of the specialize subjects and introduction of the future of the educational subject and even mentioning the scientific points of the lesson in particular.

In the form of the groups with clear content help in giving better education to the students by the networks and express what the student should do. Also in the groups, the scientific points be discussed and encourage the students to the research about the question presented.

The Telegram software as the most favored and widespread software be introduced to the students. In addition this software has the advantage that each group has a manager. Therefore, gives the right of selection to manager of each group to select the group member proportionate to the direction of the group. Therefore, it is recommended to the universities that to use the Telegram software for educational purposes. Also considering the efficiency at this software in sharing the massage in non-text but, voice and video clip and knowing that students under study have more intent in receiving image, it is recommended that in order to increase the outcome of education through the social networks, the image be, used as the tool of transferring information.

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REFERENCES

1. Shahramnia S, Mehrabi Koushki R, Pour Ranjbar M. The effect of social networks on the national identity (Case Study: Isfahan University students). Strategic Research policy. 2015; 3(9): 121-41 (Persian).
2. Boyd DM, Ellison NB. Social network sites: Definition, history, and scholarship. Journal of Computer-Mediated Communication. 2009; 13(1): 210-30.
3. Milliken J, Barnes LP. Teaching and technology in higher education: student perceptions and personal reflections. Computers & Education. 2002; 39(3): 223-35.
4. Hewitt A, Forte A. Crossing boundaries: Identity management and student/faculty relationships on the Facebook. Poster presented at CSCW, Banff, Alberta. 2006: 1-2.
5. Haythornthwaite C, Wellman B. Work, friendship, and media use for information exchange in a networked organization. Journal of the American Society for Information Science. 1998; 49(12): 1101-14.
6. Zafari S, Karamdoost NA, Dorrani K, Nazarzadeh ZM. Investigating the Rate of Using Mobile Phone for Educational and General Purposes by Postgraduate Students of the University of Tehran. Quarterly journal of Information and communication in educational sciences. 2014; 4(3): 87-106 (Persian).
7. Bhasin B. Integration of Information and Communication Technologies in Enhancing Teaching and Learning. Contemporary educational technology. 2012; 3(2): 130-40.
8. Joosten T. Social media for educators: Strategies and best practices: John Wiley & Sons, 2012.
9. Kaplan AM, Haenlein M. Users of the world, unite! The challenges and opportunities of Social Media. Business horizons. 2010; 53(1): 59-68.
10. McEwan B. Managing boundaries in the Web 2.0 classroom. New Directions for Teaching and Learning. 2012; 2012(131): 15-28.
11. Ellison NB, Boyd D. Social network sites: Definition, history, and scholarship. Journal of Computer-Mediated Communication. 2007; 13(1): 210-30.
12. Tess PA. The role of social media in higher education classes (real and virtual) - A literature review. Computers in Human Behavior. 2013; 29(5): A60-A8.
13. Zickuhr K, Madden M. Older adults and Internet use: For the first time, half of adults ages 65 and older are online. Washington, DC: Pew Internet & American Life Project. 2012.
14. Ghamari F, Mohammadbeigi A, Mohammadsalehi N, Hashiani AA. Internet addiction and modeling its risk factors in medical students, Iran. Indian J Psychol Med. 2011; 33(2): 158-62.
15. Asemi A. Information searching habits of Internet users: A case study on the Medical Sciences University of Isfahan, Iran. Webology. 2005; 2(1): Article 10.
16. ICT-TCM. Mazandaran province has the most Internet users penetration rate (86.77) percent in Iran. [Persian] 12-11-2015. Iran: Tehran: ict-tcm; 2014 [cited 2015 Sunday, June 22, 2014]. Available from: http://www.ict-tcm.ir/object.aspx?id=319.
17. Pishgooie AH, Rahimi A, Khaghanizadeh M. The Effects of Role Conflict on Nursing Faculty; A Systematic Review. International Journal of Medical Reviews. 2014; 1(2).
18. Kim SH, Mims C, Holmes KP. An introduction to current trends and benefits of mobile wireless technology use in higher education. AACE Journal. 2006; 14(1): 77-100.
19. Kavanaugh AL, Reese DD, Carroll JM, Rosson MB. Weak ties in networked communities. The Information Society. 2005; 21(2): 119-31.

20. Räsänen P, Kouvo A. Linked or divided by the web?: Internet use and sociability in four European countries. Information, Community and Society. 2007; 10(2): 219-41.

21. Kobayashi T, Ikeda Ki, Miyata K. Social capital online: Collective use of the Internet and reciprocity as lubricants of democracy. Information, Community & Society. 2006; 9(5): 582-611.

22. Hepp P, Hinostroza JE, Laval E, Rehbein L. Technology in schools: Education, ICT and the knowledge society: World Bank, Distance & Open Learning and ICT in Education Thematic Group, Human Development Network, Education, 2004.

23. Pelgrum WJ, Law N. ICT in education around the world: Trends, problems and prospects: UNESCO: International Institute for Educational Planning, 2003.

24. Asgary A, Khaghanizadeh M. Multimedia method of education Bimonthly Educ Strateg Med Sci. 2010; 2(4): 173-6.

25. Siamian H, Balaghafari A, Aligolbandi K, Bagheri M, Shahrabi A, Khademloo M, et al. Skill, Attitude and Use of Computer and Internet in Scholarly Works and Educational Affairs by Faculty Members of Mazandaran Universities of Medical Sciences. Health Information Management. 2010; 6(2): 133-40 (Persian).

26. Hoseyni T, Torabi SS, Shayan N, Ismaeel Poor M, Ashoori J. Comparing the effects of web-based teaching and cognitive and metacognitive learning strategies on nursing students' academic achievement and self-efficacy, Islamic Azad University, Pishva Branch. Media. 2015; 6(2): 1-10 (Persian).

27. Afrasyabi MS. Function of social media in teaching and managing science. Library and Information Science. 2015; 17(4(68)): 109-(Persian).

28. CheraghMolaei L, Kadivar P, Sarami G. On the Use of Virtual Social Networks in Education: Benefits and Challenges. New Thoughts on Education. 2015; 10(3): 29-51 (Persian).

29. Shami Zanjani M, Rouhani S, Taghinia Ahangari Z. Social Media Application in E-Learning Process Management. Quarterly Journal of Training & Development of Human Resource. 2014; 1(1): 80-101 (Persian).