The Effect of Social Networks on the Scientific Research Relations, Prospectiveness, Creativity and satisfaction of Scientific Position

Alireza Ebrahimpour[1], Farnaz Rajabali[2], Hasan Siamian[3], Fatemeh Rahbar[4] and Mohammad Vahedi[5]

[1] School of Dentistry, Student Research Committee, Mazandaran University of Medical Sciences, Sari, Iran
[2] School of Pharmacy, Mazandaran University of Medical Sciences, Sari, Iran
[3] Health Sciences Research Center, Health information technology department, school of Allied Medical Sciences, Mazandaran University of Medical Sciences, kilometer 17 Khazar Abad, Sari, Iran
[4] School of Dentistry, Student Research Committee, Mazandaran University of Medical Sciences, Sari, Iran
[5] School of Medicine, Mazandaran University of Medical Sciences, Sari, Iran

_____

ABSTRACT

Considering the high cultured efficiency of the social networks effective in purposeful directing the life of the users' lifestyle by emergence and significant development of the social networks. Major changes have taken place in informatics process. The social networks can play role in the production and development of the science and the science as a managed educational program be used in the educational centers. This research investigates the effects of the social networks on the educational relationship among the students and universities. This cross sectional study was performed on 1000 students at 7 medical universities of Iran in 2015. The data collection tool was questionnaire comprised three sections with approved validity. The durability of the α-cronbach coefficient for second part of the questionnaire was 80% and of the third section on the questions with the Likert Criteria was 75%. The obtained data were analyzed by descriptive statistic method of ANOVA, Tukey and X^2 using SPSS-19. In this study 940 subjects were under study, of them 85% had the daily use of social networks. Telegram had the highest usage among the users, 52% preferred the image in exchange of view. We found that 85% believed that social networks have effective role on the social relationships. Also 69% of the study subjects believe that the effects of the networks in learning insignificant materials are high. Referring to the obtained data of the present study, it is proposed that the universities use the social networks officially and managed. Establish groups with definite context and help in improvement of the scientific relation level, to be effective in the prospectiveness, creation and consent of the individuals from their scientific situation, in direct procedure.

Key words: Social Network Sites, Creativity, Satisfaction, Prospectiveness, Mazandaran, Scientific Research, Relations, Sari, Iran.

_____

INTRODUCTION

The global challenge truly or virtually is one of the main changes of the present era that causes the basic future changes of the world [1]. The social networks have the efficiency of to provide access to the other members knowing their interests and share the written and audio-video products. Also the users can develop groups according to their and the other users' interests to meet their daily needs [2]. Considering the high cultural capability of the

_____

social networks, they are effective in purposeful directing of the users life style. Therefore, the users through this way follow certain pattern for the certain behavior in each field [3].

Despite of extensive spread of using the virtual social networks, few studies are available in this context [4]. Of them the followings are pointed out:

In 1960, for the first time the social networks have been discussed in Ilinois University, USA. Then on, in 1997, the first social networking to the email address of the www.sixdegrees.com was developed [5]. In addition, there are certain social networkings activate on the clear subject directed; For example, Goodreads is specially for those interested into the books [6]. Livejournals were the first social networks with professional aims, working on journal reviewing and in context of searching all types of journals relevant to the interests of people. In 2004, Friendster with 7 million users and Myspace with 2 million users contributed the highest number of users in social networking [7].

By the development and significant growing of social networking, main changes have taken place in the information process [8].

Findings of some studies are indicating the role of social networking in development of new communication [9]. Therefore, considering the efficiency of this network and its applied users, it is possible to overcome the problems existing in the communication process and broadcasting of the information, to use better of time, manpower, and the finance [10]. Considering the growth and socio-economic changes which is clear to the people of the society, the role of the science and its management could be felt more than before [11]. The researchers agree that the reason of the success in a society is giving priority to the education [12, 13]. Researchers believe on the solution role of social network in understanding the science production and say that the reason of the organizations attention to the social network is due to their nature is sharing to the material [14]. Knowing the point that lake of sharing the knowledge in the organizations leads to the inefficiency in managing the organizational knowledge in the organizations, universities and educational institutions could play significant role by providing proper situation for interaction and better communication among the research students and faculty members and even among the students of the other universities helps in sharing and science development. Through this way be able to transfer the informations, experiences, viewpoints and ideas to each other. The universities through their agencies in the virtual media can transfer the resources, opportunities, the lesson plan informations about facilities and way of assessment to them [15]. In addition, empowering the faculty members and training them for better use of the provided services by the social network leads to the increase of quality of research, teaching and making easier the communications [16, 17]. The knowledge management activity is the management that pays to the development, storage and transfer of science and knowledge and providing of information at proper time to the organization individuals for more proper decision making in reaching the goal [18]. The social networks are the tools that make possible the exchange of ideas and thought [19]. Considering the effect of this new emerging phenomenon on the communication behaviors of the users, some of the scientists state that, the informal communication among the scientists, leads to the major changes in the context these networking development [8]. In addition the social networking by encouraging, recommendation and guidance and/or by providing proper opportunities facilitates the proper condition for sharing of the students in performing the certain behavior like participation in research activities [20]. Coming to the main point that how social networkings can serve the education centers along the growth and development of science, and that how obtain a plan for better using of the social networks in education and research, particularly medical education, needs further researches. In this study we investigate the effect of social network on the scientific communication, creativity, the prospectiveness, and the consent from the scientific situation [20].

Coming to the main point that how social networkings can serve the education centers along the growth and development of science, and that how obtain a plan for better using of the social networks in education and research, particularly medical education, needs further researches. In this study we investigate the effect of social network on the scientific communication, creativity, the prospectiveness, and the consent from the scientific situation.

MATERIALS AND METHODS

This descriptive cross-sectional and applied study was conducted to determine the attitude of the students at Mazandaran, Babol, Tehran (faculty of dentistry), Iran (medical faculty), Golestan (paramedical college), Mashhad(

_____

(faculty of dentistry) and Rafsanjan (faculty of dentistry) Medical Universities on the effect of Viber, Telegram, Whatsapp, Line and Instagram on the individuals on the scientific and research fields 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 inappropriate data.

The criteria of entering this investigation was having mobile cell with these software (Whatsapp, Line, Instagram, Viber, and Telegram). The samples were collected by probable randomized simple method. The data were collected in field in the questionnaire. The questionnaires filled incorrectly were excluded from the study. At the Mazandaran University of Medical science, during one week, the questionnaires were distributed and filled up by the students and returned back to the researcher. At Babol University of Medical Sciences, the questionnaires were distributed in the early morning by the researcher and co-worker randomly among the students and up to noon of the same day returned back .In the other Medical Sciences Universities (Tehran, Iran, Golestan, Mashhad and Rafsanjan) due to certain distance limitation, the questionnaire were emailed to the co-workers and after two weeks the questionnaires were obtained. The questionnaire consisted of three sections: the first with demographic information like, gender, age, educational subject, the university; the second section with six questions consisting of history and the rate of using the social networks. Type of software was being used, the number of the groups with scientific content differentiating the type of software, the number of groups with the health content software also the type of message that the users desired to read, such as image, voice and/or clip were evaluated. The third section comprised 18 questions asking the students, according their attitude on the effect of software on the improvement of social communication in the scientific and the research context give their ideas on their ideas on the Likert Scale rating very much to very low. The objective the questionnaire is given in the table 1

Table 1: The aims of the questions in the questionnaire

Questions	Objective
1,7,14	The effect of social networks in all behavior of the person
2	Effect on the improvement of students scientific communication with classmates
3	Effect on person in improving the social communication
4	Effect as awareness giving factor
5, 9, 13, 15, 18, 20	Effect on the person on himself evaluation
6, 10	Effect of individual planning on a person's future
8, 16	Effect on the creativity and getting idea
11, 17, 21	The motivated effect of the networks
12, 19	Effect on the rate of individuals consensus from the scientific position

The questions were designed in the questionnaire by the researchers that were approved by the other faculty members of the Mazandaran University of Medical sciences specialized in the same field. Therefore, the validity of the questionnaire was confirmed. The α cronbach method was used for durability of the questionnaire. Hence, the second section with the coefficient of 80% and fore the section on the questions that were answered by Likert Criteria was 75% that indicate the acceptable durability. The SPSS version 19 was used for the statistically analysis.

RESULTS

In this study 940 samples (59% female and 41% male) which were using social networks were collected. Among them the using duration was as follow: 14% lower than 7 months, 21% between 7-12 months and 65% more than 1 year. It was found that 85% of them used the social networks daily, 7% once in 2 to 3 days and 8% once in a week or month. The percentage and the numbers of the social network users who are member of the scientific groups differentiating the type of the software using are given in the table 1.

The highest use of social networks was attributed to the Telegram with 513 of scientific group members followed by Viber and then Whatsapp. The obtained data revealed that 493 (52%) used image, 262 (27%) used text and 157 (16%) clip, but the voice with 28 (2%) usage. In average 67% of the students believed the role of the social networks in solving their problems and 69% of them its role in learning the issues not related to the college subjects. Also 83% of the study subjects said that these social networks have positive effects on the improvement of the student's

_____

scientific and research communications. It was found that 82% of the study subjects believed that the social networks have significant effects on the individuals' social communications. About the question, whether the social networks could act as informative factor on the individuals, the answer is yes, because 77% of the study subjects believed it. In this investigation, 59% and 62% of the study subjects believed on the effect of social networks as motivated factor in proper performances and also on the receiving award, based on the quality respectively. Also 70% of the students agreed on the consequences of award decision making for him/her and the other students. The obtained data indicated that 72% and 73% of the subjects believed that social networks would load to the improvement and development of the present situations and they improve the future occupation condition, respectively; But 67% and 68% on the effect of social networks on the onset of creativity and using of the intellectually created methods. The role of the social networks about consent from university of education is moderate, but on consent from occupation could be effective 57% and 70% respectively. The numbers of the participants from the different faculties were as follow: Dentistry, 300 (32%); medicine, 180 (19%); pharmacy 50 (5%); nursing and midwifery, 141 (15%); paramedical, 269(29%). The Chi square test was used to know whether there is any relationship between the education subject and the rate of using the social network which was significant with Telegram, Viber, Line and Whatsapp applications. The obtained P-value ≤ 0.001, (P=0.05 is significant). No statistically significant relationship between the used applications and the educational subjects; But about the Instagram the obtained P value for Chi square test is two times of 0.017 which is significant at the P=0.05. Therefore, the purposes on the presence of any statistically significant relationship between the study subjects and using of the application are rejected.

Table 1: The percentage and the number of the social networks users who are members of the scientific groups differentiating the type of software being used

Type of social networks	The numbers of the users (%)	Number of membership in scientific group (%)		
		0	1-5	≥ 6
Whatsapp	681 (79%)	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)

DISCUSSION AND CONCLUSION

Finding of the present study indicate the extensive day-night use of the social networks to the extent that majority of the individuals are member of the network for more than one year. Therefore, the condition is prepared for the purposeful use of the social network to reach the predetermined objectives. Therefore, by management of the material in order to increase the real consent of the individuals and onset of creativity through sharing different plans from different parts of the world could help to the individuals idealization for the future occupation, that lead to the purposeful creativity in special direction that is proportionate to the future needs of the country.

According to the data obtained from this study that comprised the study subjects from 7 universities (east, north, and south) believed that the social networks could reduce the official and educational problems of the college. Also believed that the social networks could effect in all aspect of the life such as: educational research, knowing the official process for the application of the students at the university and knowing the plans and the university policies onset of creativity, providence and consent level from the onset situation. Which disagree with S. Fathi and M. Vosoghi stating that there is insignificant relationship between the virtual social networks and lifestyle in all [2] but correspond with the data given by Shahramnia [21].The studies indicating that the role of social networks on the improvement of the scientific relation is high in a way that 80% of the study subjects agreed completely. So, it is possible to present initial on the strategies and even developed educational and research affairs. For example, sometimes the researcher needs co-workers and consultants to conduct the investigation, Therefore, the classmates could be right people to meet the need, or the researcher in the multi-centers' study performance the co-workers from the other center of study. In this regard the universities by establishing the link between the candidate researchers introduce the co-workers to the lead researchers through the social networks which is emphasized in the study of M.S. Afrasyabi, that is the social networks by providing facilities of link to the scientific centers, and producing new knowledge based on the significant interacting communication and providing tools for establishment of new society, directly and indirectly and be effective in the knowledge management process [22]. The need of implementing the issue of social media in the educational programs of the medical universities has been discussed in

_____

the study of Asgari and Khaghanizadeh which agree with the finding of the present study [23]. J.Raeinoori reported that the social media could media could play significant role in the spreading of the science and transfer of information [24]. E.Aryani and A.zahed Babelan stated that the social networks increase the efficiency of the users in their research affairs compare to the non-users [25], which agree with the present study data. M.Sarraf zadeh and S.Alavi stated that teaching of social networks to the students is beneficient such as, educational benefiting in establishing more close communication with the other students [26]. In another dimension Ebrahimpour et.al 2016 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 because of its effect on educational dimensions [27]. Considering the wide spread use of technology among the students. The students' view point about the effects of the social networks on different aspects of life, particularly on the scientific communication is positive. Also on the individuals aspect such as, retrospective, creativity and consent from the current position. Since university is the place of growth and development and the place for presenting strategies and rendering services in reach these objectives [23], and considering the previous studies. The need for integration of the social networks with the educational system is felt; but the misuse of the technology and presenting incorrect non-management scientific information are disadvantages of these networks. Therefore, it is recommended the universities use these networks officially and managed and initiate groups with known content and share the image, text indifferent context such as, introducing the successful researchers, consent from the workplace, creativity in the workplace. Increase of productivity and idealization show the way of achievements. In order to obtain the goals, establish the necessary scientific communication. Since the students prefer image for transferring of meaning and messages. Therefore, it is recommended that to send image in the context of idealization and creativity, which is in access through Instagram.

REFERENCES

[1] Ameri, S. Globalization: Concepts and Theories. Arghanoon. 2004; 24: 43–57. [in Persian]
[2] Seddigh banay, H. Introduction to Internet social networks. Wednesday, November 8, 2006.
[3] Fathi S, Vosoughi M, salmani G. An evaluation of the relationship between virtual social network's consumption and the youth's lifestyle. Sociological Studies of Youth Journal. 2014; 4(13): 69–88
[4] Hargittai E. Whose space? Differences among users and non-users of social network sites. Journal of Computer-Mediated Communication. 2007 Oct 1; 13(1): 276-97.
[5] Bolar KP. Motives Behind the Use of Social Networking Sites: An Empirical Study. IUP Journal of Management Research, 2009; 8(1): 75–84.
[6] Nakamura L. "Words with Friends": Socially Networked Reading on Goodreads. PMLA 2013; 128(1): 238–43.
[7] Lenhart, A. Adults and social network websites. Washington, DC: Pew Internet & American Life Project. Retrieved January 15, 2009.
[8] Meadows AJ, Buckle P. Changing Communication Activities in the British Scientific Community. Journal of Documentation, 1992; 48(3): 276–90.
[9] Nixon HL. Social network analysis of sport: Emphasizing social structure in sport sociology. Sociology of Sport Journal 1993; 10: 315.
[10] Greenhalgh T. Computer assisted learning in undergraduate medical education. BMJ. 2001; 322(7277): 40.
[11] Chaharsooghi, SK; Hasani, M. "Identification, Classification and Prioritization of Knowledge Sharing Techniques in Project Management Scope". Journal of Information Technology Management. 2013; 5(3): 43–62
[12] Ganzeboom HBG, Treiman DJ, Ultee WC. Comparative intergenerational stratification research: Three generations and beyond. Annual review of sociology, 1991: 277–302.
[13] Kerckhoff AC. Institutional arrangements and stratification processes in industrial societies. Annual review of sociology, 1995: 323–47.
[14] Racherla P, Hu C. A social network perspective of tourism research collaborations. Annals of Tourism Research, 2010; 37(4): 1012–34.
[15] Jafarzadeh kermani Z. Knowledge Management in Higher Education. Communication Management, 2011; 18: 68.
[16] Saberian M, Haji Aghajani S, Ghorbani R, Kassaei M, Fattahizadeh L. Internet Use by Faculty Members in Semnan University of Medical Sciences. Iranian Journal of Medical Education 2003; 3(2): 33–9.

_____

[17] Hayati Z, Pourzahra SH. The survey of faculty member of Persian Gulf and Bousherunivesities in use of internet due to sex, experience, teaching, and degree .Education and Psychology Quarterly, 2002; 4(3): 145–66.

[18] Rao MS. Knowledge Management: Some Issues and Challenges for Corporate Excellence in the 21 st century. IOSRJBM, 2012; 1(2): 1–3.

[19] Talkhabi A. A. A Survey to Evaluate the Rate of Awareness and use of Social Media by Postgraduate Student of Sharif University of Technology in Their research. Master's Thesis, Isfahan 2011.

[20] Henderson KA, Ainsworth BE. The Connections between Social Support and Women's Physical Activity Involvement: The Cultural Activity Participation Study. Women in Sport & Physical Activity Journal, 2000; 9(2): 27.

[21] Shahramnia Amir Masood; Mehrabi Koshki, Razie; Poorranjbar, Mahdie. The Impact of Social Networks on the National Identity (Case Study: Isfahan University Students). Strategic Research of Politics. 2015; 3(9): 121-41.

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

[23] Asgary A., Khaghanizadeh M. Multimedia method of education. Educ Strategy Med Sci. 2010; 2 (4): 173-176

[24] Rezaeenour, Jalal; Lesani, Rezvan; Zakizadeh, Atefeh; Safamajid, Ghadir. Evaluating Authorship Collaboration Networks in the Field of Information Technology Using Social Netwowk Techniques. Journal of Information Technology Management. 2014; 6(2): 229-50.

[25] Aryani, Ebrahim; Zahed Bablan, Adel; Moeinikia, Mahdi; Khaleghkhah, Ali. The role of virtual social networks in the research capabilities of postgraduate students. Magazine of Elearning Distribution in Academy (MEDIA). 2015; 2(6): 26–39

[26] Sarrafzadeh, Maryam; Alavi, Soheila. The State of Online Social networking among Library and Information Sciences Students. Human Information Interaction. 2014: 1(1): 44-56.

[27] Ebrahimpour A, Rajabali F, Yazdanfar F, Azarbad R, Nodeh MR, Siamian H, Vahedi M. Social Network Sites as Educational Factors. Acta Informatica Medica. 2016; 24(2): 134.