Social Networks in Medical Education in Bosnia and Herzegovina

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ABSTRACT

Introduction: Beginning with the late twentieth and early twenty-first century, the Internet was a significant additional tool in the education of teenagers. Later, it takes more and more significant role in educating students and professionals. Goal: The aim of this paper is to investigate, to what extent and how effectively the Internet is used today by students of biomedical faculties in Bosnia and Herzegovina. In addition, more specifically, this paper will research the implications of the well-known social networks in education of students and health professionals in Bosnia and Herzegovina. We compared the ratio of using Social networks by students for spreading medical information as basics for health education at medical faculties at 3 universities in Bosnia and Herzegovina (B&H). Results and discussion: The results showed that only 11.6% of professors use Facebook type of social network, 49.3% of them have a profile on BiomedExperts scientific social network and 79% have available articles in the largest biomedical literature database MEDLINE. Students are also frequent users of general social networks and educational clips from You Tube, which they prefer to utilize considerably more than the other types of professionals. Students rarely use the facilities of professional social networks, because they contain mainly data and information needed for further, postgraduate professional education. Conclusion: In B&H there are decent conditions for the use of online social networks in the education of health professionals. While students enthusiastically embraced these opportunities, this is not so much a case with health care professionals in practice; while scientific health care workers have not shown greater interest in the use of social networks, both for purposes of scientific research and in terms of self-education and training of students.

Key words: Social networks, education, health professionals, students, Bosnia and Herzegovina.

1. INTRODUCTION

Social network is a social structure made up of individuals and organizations that represent “nodes”, and they are associated with one or more types of interdependency, such as: friendship, common interests, work, knowledge, prestige and many other interests (1, 2, 3). Development of modern information and telecommunication technologies has enabled large social networking capabilities (1). Members of the network no longer have to be in a physical contact; they may be on another continent and can exchange information, at any time of day (4, 5).

Such Internet possibilities are used in different ways, during the undergraduate and postgraduate education of health workers and continuing health education (1, 3, 5). At undergraduate level, the students often use global social networks (i.e. Facebook, Twitter, You Tube ...) or some specific health social networks, such as various forums with health issues (e.g. Health Care Forum). They rarely use the health science social networking (Medline, WoS, Scopus, BioMedExperts, WebMD...), as opposed to other professionals in medical education (1). In the undergraduate studies, the exchanged information is usually needed for the education, training and the acquisition of certain skills. Often, these elements represent non-critical information, which is sometimes inappropriately labeled as, ethics and deontology of health care workers (4). In a graduate study, the usually exchanged scientific information is used to advance the cooperation in the scientific research projects.

2. THE AIM OF THE RESEARCH

The aim of this paper is to investigate, to what extent and how effectively, the Internet is used. The special emphasis is given to the well-known social networks in the education of students and health professionals in B&H.

3. RESEARCH METHOD

The research was conducted by surveying 200 students of the Health Faculty of the University of Zenica, the Faculty of Medicine, University of Sarajevo and 210 health professionals (i.e. doctors and medical technicians) in Zenica-
Doboj Canton. The criteria by which the students were sorted were first three and second three study years.

4. RESULTS

From 180 respondents 88.8% of them have Internet access and they all have a profile on the social networks (mostly on Facebook 86.6%). Pearson correlation between the purpose of using social networks and the average score on the faculty. The correlation is extremely positive for the use intended to expand the circle of acquaintances and exchange of educational and written content. Without statistically significant relationship between the purpose of using social networks and average grades. Pearson correlation between the purpose of Internet use shows a pronounced relationship between use to exchange mail and chat with use for medical education. There is also no statistically significant relationship between success (average grade) and the purpose of Internet use.

Besting the average grade in relation to access the Internet by Student t test, we get that t = 0.462 for which p > 0.05 and conclude that there was no statistically significant differences in the average grade and the use of the Internet.

5. DISCUSSION

Public social networks, based on Internet, enable communication, collaboration and information gathering in the field of health care. More than half (55%) of Americans who are investigating health problems in the Internet age, research the data about the therapy or condition via the Internet, while a third of them use social networks. About 60% of doctors in the U.S.A. use social networks for professional purposes (1, 5). To a large extent, social networks can be used in undergraduate and graduate education of health professionals.

Students were also frequent users of general social net-
was often found to be unprofessional and unethical, on the
general social networks like Facebook, Twitter and You Tube
(4). Students rarely used the facilities of professional social
networks, because they mainly contained data and information
needed for further, graduate and/or professional education.
Unlike the use of professional social networks, students

<table>
<thead>
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<th>Internet access</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
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</thead>
<tbody>
<tr>
<td>Average grade</td>
<td>yes</td>
<td>143</td>
<td>7.83</td>
<td>0.754</td>
</tr>
<tr>
<td></td>
<td>no</td>
<td>15</td>
<td>7.73</td>
<td>0.458</td>
</tr>
</tbody>
</table>

Table 3. The ratio of internet users by gender

social interaction, and they usually, rather hide in their labs
trying to find some next great discovery, there are numerous
scientific social networks. Some of them are specific to
the biomedical sciences and the most famous, among them
is BioMedExperts. BioMedExperts is an online community
of biomedical scientists, which shows the essential features
related to their work and it cooperates on projects and areas
of interest. It is these characteristics that are of great help to
analyze the use of social networks by biomedical scientists,
with four medical schools in B&H, and their comparison
with a group of eminent scientists from our region who are
now working around the world. The study group included 151
part-time and regular teachers. We have sought the Facebook
profiles of teachers and found that only 14.6% of domestic
scientists use Facebook, while this percentage is significantly
higher for those who work outside of B&H (54.5%). Profiles of
scientific workers in B&H are generally not public and they
are only available to the certain members of the network.
They do not use them for training or are present in groups
dealing with a specific health issues on Facebook, as opposed
to a group of scientists who work outside of B&H.

By taking the opportunities given by the social networks
we also have to mention that publishing of private data
(i.e. personal information, hobbies, pictures, etc.) is always
bound to a significant loss of privacy and can lead to un-
wanted personal disadvantages. These can arise when social
network providers are confronted with security related is-
issues and cyber criminals steal private data. Social networks
also provide the best source for human resources managers
when investigating the habits of job candidates. Business
models of social networks often include commercial use
of user data and due to possibility of automatic analysis
a huge number of potential customers can be identified
easily. Generally we can say that users can never be sure
who is having access to their private data and do not know
what third parties have received their data from the social
network providers.

6. CONCLUSION

In B&H there are decent conditions for the use of online
social networks in the education of health professionals. While
students are enthusiastically embracing these opportunities,
they are somewhat less embraced by the health care profession-
als in practice. Scientific health care workers have not shown
greater interest in the use of social networks, both for purposes
of scientific research and in terms of self-education and train-
ing of students. Unlike these scholars, the scholars with similar
“background” working outside the B&H use much more the
advantages offered by the online social networks, both in edu-
cation and in support of the scientific research.

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