



Original Article

Impact of Social Media on Medical Education; A Comparative Study on Students and Teachers of Bolan Medical College Quetta

Hazrat Ali Khan^{1*}, Siraj ul Haque Shaikh^{2*}¹ Balochistan institute of psychiatry and behavioral Science, Quetta, Balochistan, Pakistan² Department of Medical Education, College of Physicians and Surgeons, Pakistan

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***Corresponding Author:**

Hazrat Ali Khan
 Bolan Medical College, Quetta Balochistan Institute of Psychiatry and Behavioral Sciences, Quetta, Balochistan, Pakistan
halia73@hotmail.com

ABSTRACT

Social media, which is becoming an integral part of society are web-based communication tools that enable people to interact with each other by both consuming and sharing the information objectives: To examine the purpose of social media among students and teachers, to evaluate the impact of social media on learning of medical education, and to assess how social media could be used more effectively for learning purposes. **Methods:** this Cross-Sectional study was conducted at Bolan Medical College, Quetta, Balochistan from 1st January 2019 to 31st January 2020. **Results:** The result displayed that the most used application by anyone is Facebook (54%) followed by WhatsApp (31%), Instagram (11%), and YouTube (4%). These young doctors although were connected with social media; however, had a bad influence on their physical and mental health (n= 20). **Conclusions:** The results indicate that the usage of social media often is not considered as a positive way to engage in spending their time (n= 14) while it was satisfactory for some (n=9) and an excellent way to learn for others (n=6). Nevertheless, there was no significant evidence observed as per the hypothesis (p > 0.05)

INTRODUCTION

Since there are many available platforms of social media, the current study will focus on three main tools of social media including Facebook, YouTube, and WhatsApp. The reason for selecting these tools is commonly used by teachers and students [1,2]. The impact of social media on health care professionals has made the researchers rethink the concept and content of medical professionalism in the digital age [3]. American Medical Association (AMA) developed guidelines and policies for health care professionals to foster awareness, courses on handling social media associated with medical professionals have been implemented in professional curricula [4]. One a systematic review on social media use in medical education concluded that using social media as a tool intervention improved knowledge e.g., exam scores, attitudes e.g., empathy, and skill e.g., reflective writing. Social media was also related with promoting learner engagement (71% of studies), feedback (57%) and

collaboration and professional development (both 36%). In a study, students highlighted that besides social media use, time management is factor which affects students' studies negatively [6]. 87% of respondents were members of different social media communities or groups. The majority of respondents agreed that social media plays an effective role in academic performance [7]. This study will have significance, particularly for medical professionals of Balochistan; no study has been conducted to see the impact of social media on medical education. It's websites and other online means of communication that are used by large groups of people to share information and to develop social and professional contacts [8]. It consists of educational activities which serve to maintain, develop, or increase the knowledge, skills and professional performance, and relationships that a physician uses to provide services for patients, the public, or the profession [9].

METHODS

It was a Cross-Sectional study, including all medical students and teachers. The present cross-sectional study was conducted in Bolan College Quetta with the recruitment of 26 subjects. The subjects comprised of medical professor and students. Each subject was given a consent form along with a questionnaire. The questionnaire consisted of some questions related to the perception of the reader related to the role of social media in medical education. The data collected was entered into SPSS version 21. The result was deduced through the application of Chi square and descriptive statistics, which demonstrates any significance to the hypothesis. Statistical analysis was SPSS 21 version applied to the collected data. The results were deduced by applying the chi square and descriptive statistics.

RESULTS

In the present study, questionnaires were distributed to the practicing doctors in the Bolan medical college to evaluate their perception of social media effects on medical education. 26 subjects were included in the study; 69% were males and 31% were females (Figure 1). These subjects were assessed on four popular social media tools used currently such as WhatsApp, YouTube, Facebook and Instagram. The result displayed that the most used application by anyone is Facebook (54%) followed by WhatsApp (31%), Instagram (11%) and YouTube (4%). These young doctors although were connected with the social media; however, 81% of the doctors only spend about an hour over the social media. However, the result was comparable for the time spend on social media and the related effect on each individual (Figure 2). Using the social media tool as an education mode has displayed significant evidence ($p \leq 0.05$). According to doctors, the use of social media acts as a tool for education and learning (80%). Educational videos are considered to be a definite form of way to understand some difficult topics in medicinal education that visually are clearly portrayed (84.6%). However, the results present increase use of social media has negatively influenced their writing skills and the collection of the learning source eventually become underdeveloped and scarce; hence, it influences academic performance. The doctors explained that using social media helped them interact, critically think and openly discuss various topics for better understanding. The literature map is also represented in flow chart (Figure 3). Nevertheless, privacy and security for sharing information with others over social media possess risk and concerning doubts regarding interaction with the staff members. The results displayed use of the social media had a good effect

on the medical professionals ($n=14$) as it improved their interaction with class fellows and lecturers. The results exhibited that the medical professionals were motivated and satisfied as to the online discussion and teaching tools that aided them in studying and learning more effectively; however, it had a bad influence on their physical and mental health ($n= 20$). The results indicate that the usage of social media often is not considered as a positive way to engage in spending their time ($n= 14$) while it was satisfactorily for some ($n=9$) and an excellent way to learn for other ($n=6$). Nevertheless, there was no significant evidence observed as per the hypothesis ($p > 0.05$).

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
sex	26	1	2	1.31	.471
Do you have any social media account	26	1	2	1.04	.196
Which social media account do you use regularly?	26	1	4	1.88	.766
How much time do you spent on social media?	26	1	3	1.23	.514
Do you find social media as a teaching tool.	26	1	2	1.19	.402
Valid N (listwise)	26				

Table 1: Descriptive Statistics of Responders

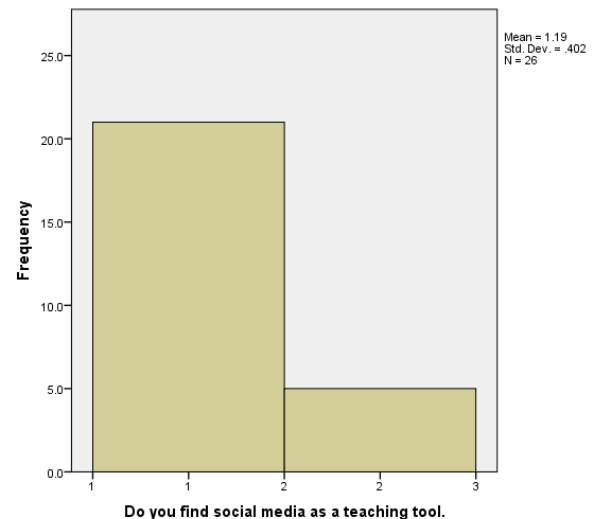


Figure 1: Frequency of responders for social media as a teaching tool

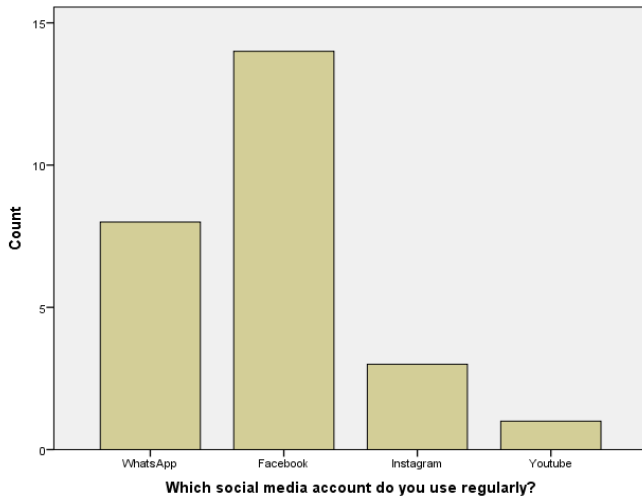


Figure 2: Frequency of responders according to type of social media usage

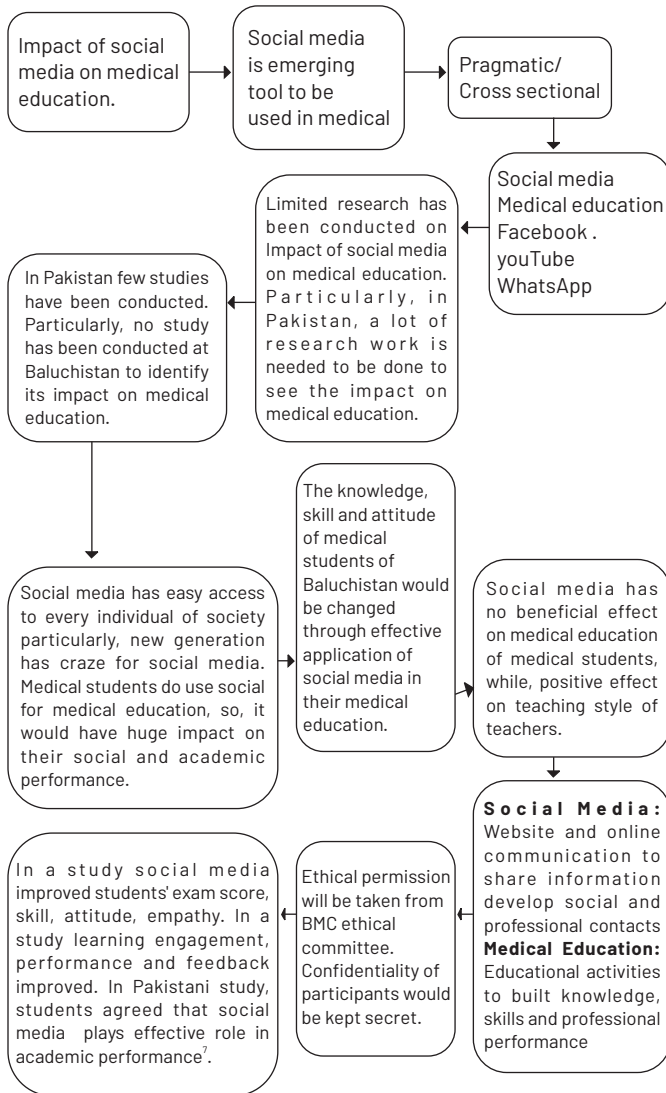


Figure 3: Flow Chart of Literature Map

DISCUSSION

The introduction of social media in the 2000s over a period has made its way through medical education [12,13]. With changes in technology, the students and even teachers face some difficulties in understanding the new procedure and technology in the field of medicine. Social media at this point helps and assists in a proper understanding of the topic and intrigues the medical professional to eagerly indulge in open discussion and share information with others [11]. In addition, currently, social media is the fastest method to spread news related to recent research and development [10,14]. This way the medical professionals can remain updated with the latest research and technology. Social media is a platform consisting of websites and applications, which allow the user to generate and share beneficial information in order for, increase interaction with other peers [15]. It was evident in the results that the medical professional accepted the use of the social medical application for interaction and open discussion with fellow students and staff members. Until now there are only five systematic reviews that analyzed the role of social media within medical education. These reviews explained that the use of Facebook has been increased by 38% [13,15]. The current research presents a similar result. Nevertheless, they pointed out that the increase rate has decreased with time. The reason for the exponential growth of the net user is due to the early age usage of smart technology and social media applications. Therefore, concerns have increased related to the use of social media to connect with medical education. This fast pace communication and access to information exhibit an increase in student satisfaction [16,17]. The social media platform is considered the fastest way to access and enhances learning efficiency. It has become necessary with time to connect at different places instantly in order to share the current revolutionary changes in the medical field. The use of social media often helps the student trespass geographical barriers. Any problems are easily discussed and shared between the continents. The subjects in the study exclaimed that searching the traditional didactic lectures for the solution requires extensive time in contrast to the active use of social media. One of the researchers claimed that the most effective way of learning is through e-learning compared to traditional methods [14,18,19]. The basis of e-learning is formed through social media applications due to the versatile and customizable nature that is tailored according to the needs of the learner [19]. Generation change has developed a different form of learning approach for the students. It is implied that the visual form of learning through Youtube or Facebook lecture and experimental videos are quite

informative and easy for the viewer to understand [9]. This type of learning is commonly known as Personal Learning Environments (PLEs) [18]. Previous studies have indicated that it is also necessary to guide the students in using social media in an effective way [18,19]. With time the social media is becoming a hub for medical professionals; hence, it is necessary to create awareness related to the positive and negative features of social media [20]. The present study pointed out that the students using social media had an increased form of interaction with the staff members. The interaction is favorable in terms of open discussions; however, this simultaneously affects the level of privacy and professionalism. According to Cheston et al, 0.2 – 16% of students often misbehave over the social media forum [13]. The behavior can be identified in the form of inappropriate status, sharing confidential information and uploading unauthorized personal details [12]. This is not only favorable for the internal reputation but also is observed by the patients who have equal access to the social media. To avoid any forgery and misunderstandings it is important that each student should act professionally and maintain their privacy [15]. Some of the institutes are still not comfortable including social media use in the learning process. They often believe that there are certain publications that are biased as only articles with a positive outcome are published. The quantitative studies performed to confirm the negative connotations related to the social media channel in medical education are yet necessary. Therefore, students need to be aware of all the consequences before completing relying on social media. There are some technical challenges also associated such as age. The younger category of adults (18 – 25) are mostly engaged in social media compared to adults [21]. A similar discrepancy is observed between the level of expertise of the faculty and the students, as the mode of information access is popular more recently than the early times of faculty. Previous studies supporting the comparable results displayed that faculty are making effective use of the social media tools to familiarize with the mode technology and maintain a level of professionalism. According to Akram et al, many lecturers face difficulty in using social media as an education tool that causes forgoing the benefits of interacting and sharing their knowledge with the students and other fellows [22]. The present study demonstrated that the interaction between medical professionals was fruitful and positive; however, many students are not comfortable with the involvement of lecturer over social media applications [23,24]. This process hinders the role of the professors as a potential digital instructor. Effective use of social media to learn, educate and spread is evidently best method currently

available that connects each individual all over the world. Hence, the hypothesis is accepted after weighing the pros and cons, as the evidence supports the idea of adopting social media into medical education acting as an educational tool.

CONCLUSION

With a changing digital world, it is important to adopt new changes to keep up with the external environment. Therefore, with precautionary measure initiative to use digital technology (social media) in medical education is necessary. Therefore, it is important for the lecturer to accept the change and extend their mode of education digitally whereas students should respect the presences of the teachers and staff in order to exchange maximum information and knowledge.

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