Social Media in Physician Assistance and Medical Education

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ABSTRACT

Objective: To assess physician assistant (PA) students' experiences with social media (SM) as a part of their medical education.

Place and duration of study: Study was conducted at Fazaia Medical College, Islamabad, Pakistan from July 2022 to July 2023 in one year duration.

Methodology: This study was completed in two different phases. In phase 1 a cross sectional survey was conducted to measure student opinions and experience with social media. This survey was conducted on all 1st and 2nd year PA students. Phase 2 was a longitudinal observational survey to incorporate two 1st year PA classes regarding social media in medical education resources. First year and second year students from medical school were enrolled.

Results: The mean support of social media inclusion in physician assistant, enhancing existing curriculum, and the anticipation of formal inclusion in the future was 2.42±0.58,2.53±0.98 and 2.42±1.06, respectively. While support social media inclusion in physician assistant, worthwhile addition to the lectures and Useful addition to physician assistant curriculum was 1.84±0.64, 1.77±0.72 and 2.02±0.88, respectively.

Conclusion: Many physician assistants and medical students are already using social media as an informal part of their studies. Some difficulties were also identified by physician assistant students in finding a well-established

educational social media. Many PA educators used our data in designing curriculum of PA students. More studies are needed to focus on social media use and its effects on examination education and learning.

Keywords: Social media, technology, physician assistant, education, medical education.

1. INTRODUCTION

Today most physician assistants have been involved in latest technologies from their early age group (1). Latest extension of internet-based technologies is social media that mean electronic communication including micro blogs, blogs, video sharing, social networking (YouTube, Facebook) and showing of photos (Instagram) (2). Social media allows their users to give comments and opinions that were not found in traditional media like newspaper and textbooks. In health care education social media plays an important role regarding learning and teaching and this trend is increasing day by day (3).

Many studies have been conducted to evaluate the use of social media in progressive designed to teach medical students, allied health professionals and even physicians are using social media for their formal and informal education and learning plan (4). In 2016 a systemic review was conducted to know the intention of nursing students in social media and learning education (5). Physician mostly used the podcast Twitter to enhance their capability regarding education and patients flow and to show their evidence-based information. Freely available educational resources like Sci.Hub and open access medical education are popular among physicians and residents Twitter (6).

Some recent studies have been conducted in evaluation of social media involvement in medical students learning courses like Neuroanatomy course, clinical medicine course, surgery workshop and ultrasound training course (7). These studies found an increased idea sharing communication and positive opinion from students (8). But role of traditional resources like lectures and article journals are still mainstay of medical education and physician essentials. Physician and having good experience feel more comfortable with use of social media in their lives (9).

Now more updated methods of electronic education are introduced like blended learning and flipped learning classrooms. Blended learning combines

different educational methods through which some topics can be presented with easy ways at a time online. Flipped classroom allows the students to prepare video or audio homework on podcasts and participate in active learning sessions (10).

Thus, study was designed to establish a bond between social media and local physician assistant and students to show their experience of interaction on social media education learning.

2. METHODOLOGY

This study was completed in two different phases. In phase 1 a cross sectional survey was conducted to measure student opinions and experience with social media. This survey was conducted on all 1st and 2nd year PA students. Phase 2 was a longitudinal observational survey to incorporate two 1st year PA classes regarding social media in medical education resources. First year and second year students from medical school were enrolled. Students of upper classes were excluded from study. Study data was collected through Twitter statistics and email. In this phase of survey students' demographic data, their primary source of medical education, use of social media in their lives regarding education and learning courses and their experience was assessed. Survey 2 was also similar in data collection like demographic and social media use in class work. Study was conducted at Fazaia Medical College, Islamabad, Pakistan from July 2019 to July 2020.

All participants were allowed to send data voluntarily through email. Data was collected through email and similar email was sent after 4 weeks. In this phase social media lecture were given to students on Twitter account that was entered for study purpose. PowerPoint slides were prepared by lectures and sent to participants. All these lectures were referred to open access medical education by Twitter platform. Students were asked and encouraged to use social media for study outside classroom and to show experience in classroom. Tweets of students were followed, and number of views was recorded. Number of views on each tweet were followed and Twitter analytics were used to calculate data.

3. RESULTS

Two hundred and eighty patients were included in this study. The study population was split into two phases as phase I n=230 and phase II n=5. The

mean age of phase I survey students was 24.23±3.84 years. There was n=134 (58.3%) male students and n=96 (41.7%) female students. There was n=95 (41.3%) physician assistant students in the first year and n=135 (58.7%) in second year. While the mean age of phase II survey students was 23.92±2.26 years. There was n=22 (44%) males and n=28 (56%) female students. There was n=19 (38%) physician assistant students in the first year and n=31 (62%) in the second year. The differences were statistically insignificant. (Table 1).

Table 1: Demographic Characteristics of the Students

Variable	Phase I Survey n=230	Phase II Survey n=50	P-value
Age (years)	24.23±3.84	23.92±2.26	0.577
Gender			
Male	n=134 (58.3%)	n=22 (44%)	0.066
Female	n=96 (41.7%)	n=28 (56%)	
Physician assistant status			
First year	n=95 (41.3%)	n=19 (38%)	0.666
Second years	n=135 (58.7%)	n=31 (62%)	

Source: Author's own calculation

In phase I survey, n=72 (31.3%) students used social media for personal matters, n=147 (63.9%) used social media for informal physician assistant education and n=3 (1.3%) used for formal physician assistant education. The most common social media accounts of students at Facebook and Instagram, n=224 (97.4%) and n=155 (67.4%), respectively. The most frequently used social media for education purposes were Facebook and YouTube, n=127 (55.2%) and n=109 (47.4%), respectively. (Table 2).

Table 2: Phase I Survey Responses for Social Media Use

Variable	Frequency	Percentage
Social media use		
Not at all	8	3.5
Only for personal use	72	31.3
Informal part of PA education, on own	147	63.9
Formally included part of PA education	3	1.3
Current social media accounts		

Facebook	224	97.4
Instagram	155	64.7
Linked-In	99	43.0
Google+	78	33.9
Twitter	54	23.5
Other (Snap chat, etc)	29	12.6
MySpace	15	6.5
Social media used for education		
Facebook	127	55.2
YouTube	109	47.4
Other	73	31.7
Medical blogs	32	13.9
Google+	18	7.8
Twitter	12	5.2

Source: Author's own calculation

In phase II survey, n=30 (60%) students used social media resources for lectures. The most likely used social media if incorporated into physician assistant was Facebook YouTube i.e. n=30 (60%) and n=25 (56%), respectively. While the most common useful way to incorporate physician assistant of students of phase II was clarity of lectures and additional educational resources, n=27 (54%) and n=24 (48%), respectively. (Table 3).

Table 3: Phase II Survey Responses for Social Media Use

Variable	Frequency	Percentage
Social media use related to lectures		
Yes	30	60.0
No	20	40.0
Most likely to use, if incorporated into PA education		
YouTube	28	56.0
Facebook	30	60.0
Instagram	19	38.0
Medical blogs	14	28.0
Twitter	10	20.0
Medical image websites	7	14.0

Podcasts	4	8.0
Google+	7	14.0
Most useful way to incorporate into PA education		
Clarify lecture topics	27	54.0
Additional educational resources	24	48.0
Extra credit assignments	21	42.0
Method of self-learning	15	30.0
Graded assignments	1	2.0
Should not be included	1	2.0

Source: Author's own calculation

The means support social media inclusion in physician assistant, augment existing physician assistant curriculum and social media will be formally included in the future in phase I survey was 2.42±0.58,2.53±0.98 and 2.42±1.06, respectively. While support social media inclusion in physician assistant, worthwhile addition to the lectures and Useful addition to physician assistant curriculum was 1.84±0.64, 1.77±0.72 and 2.02±0.88, respectively. (Table 4).

Table 4: Opinion based Responses for the Use of Social Media in Physician Assistant Education

Variable	(Rating) Mean±S.D
Phase I	
Support SM inclusion in PA education	2.42±0.58
Should augment existing PA curriculum	2.53±0.98
SM will be formally included in the future	2.42±1.06
Phase II	
Support SM inclusion in PA education	1.84±0.64
Worthwhile addition to the lectures	1.77±0.72
Useful addition to PA curriculum	2.02±0.88

Source: Author's own calculation

4. DISCUSSION

A recent study was conducted by Wanner et al. (11) in 2019 on use of social media in education of physician assistant education and observed a great interest of students in use of social media for the sake of patient welfare and their better results in their education. This data was also helpful to design curriculum of PA

assistants by PA educators. of Another study by Talwalkar et al. (12) reported that all respondents of study were connected to social media for purpose of their relationship with families, use of social media for professional purpose is less common only 29% and they were not connected to their faculty through social media networking.

Farman et al. (13) conducted a study on use of social media in pediatric practice and noticed that physicians can play an important role in patients and their attendants counseling, it will play positive role for patient's well-being. Essary et al. (14) also conducted a similar study on this topic and reported that among the benefits of social media in medical education some adverse effects like academic dismissal and unprofessional conducts also reported. Students and faculty and administration need suggestions for use of social media wisely.

Kind et al. (15) suggested that there is need to encourage the educators to use social media in medical education, he observed only 10% of medical schools relate to social media. O'Reilly et al. (16) highlighted another problem that on social media it is too problematic to keep the professional and ethical boundaries between patients and physicians.

Twitter account is internationally recognized for physician assistance and people post variety of articles and lots of information can be obtained from different accounts. Wadia et al. (17) concluded in his study that social media is an important tool to improve physician assistance and quality of medical education. Physicians can also enhance their interaction with their patients and quality of care.

Wang et al. (18) conducted a study in 2012 on use of social media in continuation of medical education and describe validated measures of continuation medical education (CME) course. It was suggested for younger learners to increase interest in CME to enter a worthwhile profession.

In 2019 Latif et al. (19) conducted a study and reported that social media has great potential to share and express knowledge and information between students and colleagues. Famous social media resources are WhatsApp, Facebook, and twitter through which one can do their work of classroom and enhance the capability of seeking medical education. Ralph et al. (20) also observed similar

findings that social media is an important tool for knowledge sharing, information and collaboration among facilitators, learners, and students.

5. CONCLUSION

Many physician assistants and medical students are already using social media as an informal part of their studies. Some difficulties were also identified by physician assistant students in finding a well-established educational social media. Many PA educators used our data in designing curriculum of PA students. More studies are needed to focus on social media use and its effects on examination education and learning.

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