



Original Article

Social Media Usage and its Association with Academic Performance of Undergraduate Physical Therapy Students

Adeena Shahzad¹, Ayesha Jamil¹, Mahroze Tauseef², Sana Akram¹, Syed Asadullah Arsalan¹

¹University Institute of Physical Therapy, Faculty of Allied Health Sciences, University of Lahore, Lahore, Pakistan

²NUR International University, Lahore, Pakistan

ABSTRACT

Background: Social media has become popular among the young generation around the globe. The students are under much influence of this platform and spend their maximum time and energy on it which may affect their personal, academic and professional lives. **Objective:** To find out the role of social media usage and its association with the academic performance of undergraduate physical therapy students. **Methods:** This cross-sectional study was conducted from March to September 2022 using an online survey of three public and private sector universities in Lahore, Pakistan. Data was collected from 325 undergraduate physiotherapy students and a pre-designed self-reported questionnaire was used to collect data. Cross tabulation and chi-square analysis was used to determine the association between characteristics of social media use and academic performance. The p-value was set at ≤ 0.05 . **Results:** Among 325 participants, 211 (65%) were females and 114 (35%) were males and the mean age was 21.92 ± 1.75 years. About 145 (45%) undergraduate physical therapy students had been using social media for the last 3 to 4 years, 203 (63%) had used it more than six hours/day and 190 (59%) mainly used that for educational stuff. A total of 165 (51%) had excellent grade point averages and no association was observed between social media usage and academic profile. **Conclusion:** The majority of students used social media for more than six hours per day for educational and informational purposes and had excellent cumulative grade point average. WhatsApp, YouTube and Instagram were the most commonly used social media platforms by the students.

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***Corresponding Author:** Ayesha Jamil, University Institute of Physical Therapy, Faculty of Allied Health Sciences, University of Lahore, Lahore, Pakistan
Email: ayeshabutt031@gmail.com
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INTRODUCTION

Social networking has become a global phenomenon, with users practically participating all around the globe. Students are one of the maximum integral customers of digital social networks.¹ With this rapid technological growth, the trends of using social media, additionally referred to as a social networking site (SNS), among students are getting higher in Pakistan too.^{2,3} It is a new verbal exchange medium used by students.⁴ Facebook, blogs, Twitter, myspace and LinkedIn are examples of social networks based on the internet.⁵

These sites are utilized by teens and young adults to interact with friends, share information, and show their identities and social life.⁶ SNSs are also being utilized as a communication and educational tool among teachers and students, particularly in the west where it is a two-way process.⁷ Social networks have an impact on the development of an individual from childhood to adulthood, imparting negative and positive traits to the community.⁸ Uses of social media may have positive effects by allowing students to maintain existing networks or build on 'micro-communities', exchange links, learn online and find jobs to achieve their economic, educational, political, and social goals.⁹

Students imply social media as an academic supplement, as they believe it to be a full-time part of their lives.¹⁰ Alternatively the usage of social media may also result in bad language and spelling and divert focus away from academics.^{11,12} Moreover, time spent on social media may affect academic performance and causes a bad impact on Grade Point Average (GPA).^{13,14} Social networking is also widely used in the medical field.¹⁵ Doctors, paramedics and medical students largely use this forum to discuss experiences and treatment options, communicate with other

professionals and patients and receive comprehensive information about their conditions.^{16,17}

Virtual learning not only facilitates medical education, but also improves inter-personal contacts, and helps in disseminating information during natural disasters and pandemics.¹⁸ However, the overuse of social networks has terrible instructional, social, health and fitness-related issues for students.¹⁹ Physiotherapists have a central role in rehabilitation and patient management. The knowledge and skill development of students is largely based on their engagement in the learning activity.²⁰ The use of social media and its impact on the academic performance of undergraduate physical therapy students is not determined yet. This study was designed to find out the frequency of social media usage and its association with the academic performance of undergraduate physical therapy students in different universities in Lahore, Pakistan.

METHODS

This cross-sectional study was conducted from March to September 2022. The ethical approval was taken from the University of Lahore, reference no. REC-UOL-/168-03/2022. A sample of 325 undergraduate physical therapy students was calculated from Epitool using the estimated proportion of 0.3 and precision of 0.05. Data was collected from different universities in Lahore, Pakistan. A pre-designed self-administered questionnaire was used to collect the data. The google link of the form was shared on different online physiotherapy groups and forums.

The participants of age 18 to 26 years, both gender, registered in a physical therapy program at the undergraduate level, in the annual or semester system were enrolled in the study. Informed consent was sought, and

confidentiality and anonymity of data were ensured. The objectives of the study were explained on online forms. Information regarding demographic details, cumulative grade point average (cGPA) and social media characteristics were obtained. Social media characteristics included time spent per day and period since using social media and the purpose of using it. Whereas, academic performance was measured by cGPA and categorized from fair to outstanding. SPSS Version 23 was used to enter and analyze the data. The numerical data were presented in the form of mean and standard deviation. Categorical variables were presented in the form of frequency and percentage. Chi-square analysis was used to find the association between academic achievement and time using social media usage. The p-value was set at ≤ 0.05 .

RESULTS

Table no. 1 shows the demographic characteristics and grades of participants. A total of 180 (55%) of the participants were of age range from 21-23years and around 268 (83%) were enrolled in a semester system of education, and 98 (30%) were in their 5th or final year of the degree prog;2ram. A total of 165 (51%) reported excellent GPA, and among those majority were the females i.e. 111 (53%). Table no. 2 represents the characteristics of social media usage among male and female participants. The results showed that there is no significant difference in the use of social media platforms in male and female participants ($p=0.13$), time since using it ($p=0.12$) and no. of hours spent on social media per day ($p=0.58$). However, female participants have joined more

Table 1: Gender-wise Description of Socio-demographic Details of Participants

Variables	Categories	Male	Females	Total
Age Category	18 - 20	29 (25%)	51 (24%)	80 (25%)
	21 – 23	63 (55%)	117 (56%)	180 (55%)
	24 – 26	22 (19%)	43 (20%)	65 (20%)
Gender		114 (35%)	211 (65%)	325 (100)
Examination System	Annual	21 (18%)	36 (17%)	57(18%)
	Semester	93 (82%)	175 (83%)	268 (83%)
Year of Examination	1 st	14 (12%)	17 (8%)	31 (10%)
	2 nd	25 (22%)	22 (10%)	47 (15%)
	3 rd	37 (33%)	55 (26%)	92 (28%)
	4 th	17 (15%)	40 (19%)	57 (18%)
	5 th	21 (18%)	77 (37%)	98 (30%)
Academic Performance	Fair	10 (9%)	6 (3%)	16 (5%)
	Good	2 (2%)	9 (4%)	11 (3%)
	Very Good	24 (21%)	41(19%)	65 (20%)
	Excellent	54 (47%)	111 (53%)	165 (51%)
	Outstanding	24 (21%)	44 (21%)	68 (21%)

Table 2: Social Media Usage and its Characteristics

Social Media Characteristics	Categories	Male n (%)	Females n (%)	Total n (%)	Chi-Square p-value
Social media platform	YouTube	8 (3)	10 (3)	18 (6)	$\chi^2_{(6)} = 9.88,$ $p=0.13$
	Facebook	3 (1)	0	3 (1)	
	WhatsApp	14 (4)	33 (10)	47 (15)	
	Instagram	3 (3)	12 (6)	15 (5)	
	Twitter	3 (1)	12 (4)	5 (2)	
	Snapchat	1 (1)	1 (1)	2 (1)	
	All	82 (25)	153 (47)	235 (72)	
Time since using social media (in years)	1-2 year	23 (7)	54 (16)	77 (24)	$\chi^2_{(2)} = 8.79,$ $p=0.12$
	3-4 years	43 (13)	102 (31)	145 (45)	
	More than 4 years	48 (14)	55 (17)	103 (32)	
Time spent on social media (in hours)	1-3 hours	15 (7)	37 (12)	52 (16)	$\chi^2_{(2)} = 1.08,$ $p=0.58$
	4-6 hours	26 (8)	44 (14)	70 (22)	
	More than 6 hour	73 (23)	130 (40)	203 (63)	
Uses of social media	Music/Post	26 (8)	36 (11)	62 (19)	$\chi^2_{(3)} = 4.45,$ $p=0.21$
	Education Stuff	60 (19)	130 (40)	190 (59)	
	Blogging	15 (5)	31 (10)	46 (14)	
	All	13 (4)	14 (4)	27 (8)	
Communities belong to social media	Educational	31 (10)	41 (13)	72 (22)	$\chi^2_{(4)} = 15.63,$ $p=0.004$
	Entertainment	8 (2)	9 (3)	4 (4)	
	Informational	30 (9)	37 (11)	67 (21)	
	All	45 (14)	124 (38)	169 (52)	
Usage of Language	Formal	38 (33)	100 (47)	138 (43)	$\chi^2_{(2)} = 9.26,$ $p=0.01$
	Informal	54 (47)	91 (43)	145 (45)	
	Slang	22 (19)	20 (10)	42 (13)	

communities related to educational and informational stuff on social media than male participants ($p=0.004$). Moreover, female participants tend to use formal language more than males ($p=0.01$). Table III represents the association between the frequency of social media usage and the academic performance of undergraduate physical therapy students. The

results showed no significant association between time since using social media ($p=0.71$) and total time in the day ($p=1.08$) which means that despite the more time spend on social media platforms academic performance is not affected. This might be due to the educational and informational usage of social media.

Table III: Association between Frequency of Social Media Usage and Academic Performance of Students

Frequency of Social Media Usage	Categories	Fair n (%) 16 (5)	Good n (%) 11 (3)	Very Good n (%) 65 (20)	Excellent n (%) 165 (51)	Outstanding n (%) 68 (21)	Chi-Square p-value
Time since using social media (in years)	1-2 year	4 (1)	2 (1)	12 (4)	44 (14)	15 (5)	$\chi^2_{(8)}=5.42$ $p=0.71$
	3-4 years	5 (2)	5 (2)	34 (11)	67 (21)	34 (11)	
	>4 years	7 (2)	4 (1)	19 (6)	54 (17)	19 (6)	
Time spend on social media (in hours)	1-3 hours	2 (1)	4 (1)	10 (3)	19 (6)	17 (5)	$\chi^2_{(8)}=13.12$ $p=1.08$
	4-6 hours	2 (1)	2 (1)	18 (6)	34 (11)	14 (4)	
	>6 hour	12 (4)	5 (2)	37 (11)	112 (35)	37 (11)	

DISCUSSION

This study was conducted to assess the frequency of social media usage and its association with academic performance in undergraduate physical therapy students. The results of this study showed that most of the students are a regular user of social networks and has excellent cGPA. Participants mainly females utilize social networks as an educational and informative adjunct in their studies besides a medium of communication. According to the study conducted by M. Owusu-Acheaw and Agatha Gifty Larson in 2015, most students use social media sites on their electronic gadgets and spend time 30 minutes to 3 hours per day.⁶ In the present study, 73 (23%) male and 130 (40%) female

participants use social media more than 6 hours per day. A higher number of students are making use of social media for educational and informational purposes and also to receive information about classes. It represents that social media may assist students to connect efficiently with their classmates to address difficulties in their classrooms, as they described social media as effective communication tools.¹² A study conducted by Saba Mehmood and Tarang Taswir in 2013 found that social media is used mainly by students for chatting and entertainment. Downloading music or videos, and uploading images, are all examples of entertainment. Educational activities such as writing articles,

taking quizzes, and communicating with teachers received a lower score in their studies likewise the academic output.²¹ In contrast, the results of the current study showed that 190 (59%) students use social media for educational purposes. According to the study conducted by Sandra Okyeadie Mensah and Dr. Ismail Nizam in 2016, no association was found between time spent on social media and students' academic performance.²²

A study by Orji EI et al. in 2022 reported that students who use social media for less than 5 hours per day had a high performance in academics. However, the current study resulted in that majority had 6 hours of daily usage while no association was observed between the time spent on social media with academic performance.²³ A study conducted by Azizi, S.M., Soroush, A. & Khatony, A. in 2019 observed that male students are more addicted to social media which impairs academic performance.⁸ Another study by HK Junejo, N Hussain and AR Lashari in 2022 reported that male and female students had equal use of different social media platforms.²⁴ Likewise, this study had no gender difference in social media usage in terms of time and purpose. Moreover, their study showed a negative correlation between social media usage and academic performance, the p-value is 0.000.²⁴ In contrast to their finding, the results of this study showed that the academic performance of students is not affected by social media usage.

According to the study conducted by Alamri, Mahdi M in 2019, the students in their study used social websites frequently, and most of the students used WhatsApp, followed by Twitter. On the other hand, Wiki, Facebook and LinkedIn were the least used social websites platforms among scholars.²⁵ But in the present study students use all types of social media applications. Most of the students use WhatsApp as compared to other

social media sites. This study is conducted on undergraduate physiotherapy students only. The cGPA was provided by the participants themselves and not verified by the transcripts. It is recommended that future researchers carry out similar studies for postgraduate students and other medical studies. Also, researchers should highlight ways to manage usage for networking and continuing professional development.

CONCLUSION

It is concluded that besides the frequent use of social media, students had an excellent CGPA. The majority of students use multiple social media platforms. It is being used for educational and informational purposes by undergraduate physical therapy students. Female students joined more communities related to educational stuff than male students and use formal language for communication on social media.

DECLARATIONS

Consent to participate: Written consent had been taken from patients. All methods were performed following the relevant guidelines and regulations.

Availability of data and materials: Data will be available on request. The corresponding author will submit all dataset files.

Competing interests: None

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