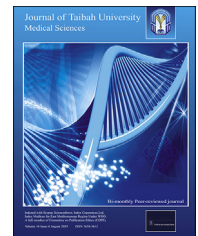




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Original Article

Gender variations in social media usage and academic performance among the students of University of Sharjah

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المخلص

أهداف البحث: تعتبر وسائل التواصل الاجتماعي واحدة من الأنشطة الأكثر شيوعاً بين طلاب الجامعات التي يمكن أن تؤثر على حياتهم اليومية. وهناك اختلاف كبير لهذا التأثير على أساس الجنس وبعض العوامل الأخرى. إن تأثير استخدام وسائل التواصل الاجتماعي على الأداء الأكاديمي غير معروف. تهدف هذه الدراسة إلى تقييم الفروق بين الجنسين بين طلبة جامعة الشارقة للتنبؤ بتأثير استخدام وسائل التواصل الاجتماعي على أدائهم الأكاديمي.

طرق البحث: أجريت دراسة مقطعية على ٣٢٨ من طلبة الطب بجامعة الشارقة، من جميع السنوات الدراسية. وتم تقييم استخدام وسائل التواصل الاجتماعي باستخدام استبانة تعباً ذاتياً بعنوان "استبانة وسائل التواصل الاجتماعي والأداء الأكاديمي للطلاب". تستخدم هذه الأداة مقياس تقييم ليكرت ذا ٤ نقاط ويحتوي على قسمين؛ قسم للتركيبة السكانية للمشاركة، وسنة الدراسة والوقت الذي يقضيه في استخدام وسائل التواصل الاجتماعي، والقسم الآخر يجمع آراء المشاركين عن تأثير وإدمان استخدام وسائل التواصل الاجتماعي.

النتائج: استجاب ٣٢٨ طالباً من بين ٥٠٠ تمت دعوتهم؛ بمعدل استجابة ٦٦٪. وكان الإناث ٦١٪ والذكور ٣٩٪. كما كان متوسط الوقت المستخدم في استعمال وسائل التواصل الاجتماعي هو ٢-٣ ساعات يومياً. علاوة على ذلك، كان الطلاب الذكور أكثر إدماناً على استخدام وسائل التواصل الاجتماعي (٤٩.٦٪ مقابل ٣٢٪، عند الإناث). بالإضافة إلى ذلك، يتأثر الأداء الأكاديمي للإناث باستخدام وسائل التواصل الاجتماعي بدرجة أكبر من الذكور.

الاستنتاجات: توضح هذه الدراسة وجود فرق كبير في الأداء الأكاديمي لطلاب الطب متأثرين باستخدام وسائل التواصل الاجتماعي. نحث معلمي الطب على

صياغة المبادئ التوجيهية لاستخدام وسائل التواصل الاجتماعي لأغراض تعليمية الأمر الذي سوف يساعد على تحسين الأداء الأكاديمي للطلاب.

الكلمات المفتاحية: الأداء الأكاديمي؛ الجنس؛ وسائل التواصل الاجتماعي؛ الاختلاف؛ طلاب الطب

Abstract

Objective: Social media usage is considered one of the most common activities among university students that could impact their daily lives. There is a great variation of the level of this impact depending on gender and some other factors. The impact of social media usage on academic performance is not known. This study aims to evaluate gender differences amongst students at the University of Sharjah (UoS) for predicting the impact of social media usage on their academic performance.

Methods: A cross-sectional study was conducted on 328 medical UoS students across all years of study. Social media usage was assessed by a self-administered questionnaire titled Social Media and Academic Performance of Students Questionnaire (SMAAPOS). This tool used a 4-point Linkert rating scale and contained two sections: a section for participants' demographics, year of study and time spent on social media and another section collected participants' views about the impact and addictiveness of social media. Chi-square test using SPSS (v 20) was used for data analysis.

Results: Of the 500 invitees, 328 students responded; a response rate of 66%. The respondents were 61% female and 39% male students. The average time spent on social media usage was reported as 2–3 h per day. Furthermore, males were more addicted to social media than

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females (49.6%) and (32%), respectively. Additionally, females' academic performance was more highly influenced by the usage of social media than that of males, although males were more addicted to social media networks.

Conclusion: This study demonstrates a significant difference in the academic performance of medical students as influenced by social media usage. Medical educators are urged to frame guidelines for using social media for educational purposes that will help improve the academic performance of the students.

Keywords: Academic performance; Gender; Social media; Variation; Medical students

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Introduction

The term 'social media' refers to applications that allow users to converse and interact with each other; create, edit, and share new forms of textual, visual, and audio content; and categorize, label, and recommend existing forms of content (2012).¹ Information and communication technologies are widely used at present in nearly all aspects of people's lives, including entertainment, education, decision making, information seeking, trading, and business. As a result, time, effort, and costs are saved during people's daily routine.² Academic performance is defined as 'the overall performance in each year, which culminates in a Grade Point Average (GPA)'.³ Social media technology has recently become an inseparable part of people's daily activities; thus, many researchers and scholars are studying the effects of social media technologies and applications on different aspects of people's lives.² Many people, especially higher education students, spend their time using social media. Social media applications and their usage amongst students have rapidly increased in the last 10 years, and their effect on students' academic performance varies.^{4,5} The attractiveness of social media continues to increase because it provides people with easy ways to interact with others.⁶

Many studies around the world have illustrated the relationship between the usage of social media and academic performance and achievement of undergraduate university students. Amongst adults aged 18 years–29 years living in the United States of America, social media usage increased from 12% in 2005 to 90% along with the widespread usage of smartphone technology.⁷ One study conducted over 15 countries acknowledged students in higher education as being responsible for the growing usage of different portable devices, such as tablets and smartphones. Students who used social media wisely improved in their academic performance.^{5,7} However, those who failed to regulate their usage of social networks often lead to addictive usage and negatively affected their studies.⁵

In a study conducted in Australia (2018), 106 undergraduate students were surveyed with 67% of them attributing their successful academic performance to the usage of technology.⁷ Similar results were obtained in a study conducted amongst 30 male students at the Petroleum Institute in Abu Dhabi, the United Arab Emirates (UAE); specifically, students with high GPAs were found to spend much time on social media sites and applications.⁸ The most commonly used social media platform by university students was Facebook, representing 90% of 3000 study participants.⁹

Studies conducted in China and Iraq (2016) showed that social media was used as a positive approach in the learning process, by using the platform for assignment discussions and other course work, getting news and updates on class schedules and locations, exchanging information amongst their peers, and addressing concerns related to their coursework.^{4,10} In contrast, other studies showed a negative effect of social media usage on the academic performance of university students. Students who spent much time on social media platforms for chatting had a high probability of experiencing a decline in their academic performance.^{11–13} In addition, students who were deeply involved in the activities of networking sites during study lacked attention and were distracted.¹¹ Support on the negative impact of social media usage was illustrated in a study conducted in four tertiary educational institutions in the UAE; in particular, results amongst male students interviewed through focus group sessions showed that extensive social network usage negatively impacted class performance and even led to class failure in some cases.¹⁴ Similar results were obtained in a study conducted in Turkey involving 220 male and female university students; the results revealed that digital technologies and social networking sites negatively impacted students' studies and routines.¹³

The latter study investigated if there were any gender variations in the usage of social networking sites. The findings revealed that of the many students (both males and females) interested in social networking, some became addicted, and as a result, suffered a negative impact to their academic performance, habits, and social life.¹³ Another study linked one of the most widely used social networking platforms, Facebook, to low academic performance in both genders, if it was used in the classroom.⁶ Another finding noted in this study was that the number of Facebook friends of male students related positively to academic performance, contrary to that of female students, which was related negatively.⁶

Many studies around the world reported significant findings about gender variations in social media usage among university students. Muscanell and Guadagno conducted a study in 2012 to explore the influence of gender and personality on an individual's use of social networking. They found that females use social media for educational purposes more than males.¹⁴ A similar study in the United Arab Emirates (2010) revealed that Facebook looked further essential for female university students to extend their social network, access more information, and experiences.¹⁵

This study was supported and approved by University of Sharjah's Research Ethics Committee grant (REC-18-01-29-01).

Materials and Methods

This study used a cross-sectional study design, and it was conducted at the University of Sharjah (UOS) among students who enrolled in UOS medical colleges, regardless of their year of study or nationality. We used a questionnaire as the main data gathering tool. Our questionnaire consisted of two main sections. Section one dealt with participant demographics, time spent on social media, and the frequency of using social media in classes. Section two dealt with the addictiveness to social media and the effect of social media on academic performance and gender usage. In this current study, the student was defined as any individual above 18 years. A total of 328 randomly selected students completed the self-reported Social Media and Academic Performance of Students Questionnaire (SMAAPOS), which consisted of 24 items, out of which 18 utilized a Likert scale with four possible responses (Strongly Agree, Agree, Disagree, and Strongly Disagree). The questionnaire is a psychometrically valid and reliable instrument, which was designed to be applicable to a broad range of social media activities. In this current study, the average time required to complete the questionnaire was 7 min.

Data entry and analysis were performed using the Statistical Package for the Social Sciences (SPSS®) version 20. A simple descriptive analysis was carried out in the form of numbers and percentages. Chi-square was used as a test of significance to detect the association between variables, and a level of less than 0.05 was considered significant.

Results

Out of the 500 invitees, 328 students completed the study questionnaire (a response rate of 66%). As shown in [Table 1](#), 200 of the respondents were female (61%), whereas the other 128 were male (39%). The majority of the respondents were from the age group between 21 and 25 years old (51%). Most of the students (53.4%) were currently in their first year of study ([Table 2](#)).

A total of 29.0% of the students used social networking sites from 2 to 3 h, and 7.3% of them used these tools for less than 1 h ([Table 3](#)).

The order of frequency of social media usage during class was sometimes (34.1%) followed by rarely (30.2%), never (14.3%), often (16.2%) and always (5.2%) ([Table 4](#)).

As shown in [Table 5](#), males were more addicted to social media than females (49% vs. 32%, $P = 0.001$), respectively. Those who were addicted to social media (68.5%) did not benefit from it to improve their grades ([Table 7](#)).

Table 1: Demographic profile.

Sex	Frequency	Percent (%)
Male	128	39
Female	200	61
Age	Frequency	Percent (%)
16–20 years	123	37.5
21–25 years	170	51.8
26 years and above	35	10.7

Table 2: Year of Study.

Year	Frequency	Percent (%)
Year 1	175	53.4
Year 2	37	11.3
Year 3	35	10.7
Year 4	33	10.1
Year 5	33	10.1
Year 6	15	4.6

Table 3: Time spent on Social Media.

Time Spent	Frequency	Percent (%)
<1 h	24	7.3
1–2 h	69	21.0
2–3 h	95	29.0
3–4 h	57	17.4
4–5 h	43	13.1
>6	40	12.2

Table 4: Usage of Social Media during Class.

Usage during class	Frequency	Percent (%)
Never	47	14.3
Rarely	99	30.2
Sometimes	112	34.1
Often	53	16.2
Always	17	5.2

[Table 6](#) shows that access to social media had a greater impact on the academic performance of females (46.5%) in comparison to that of males (28%). However, for the majority of males (71.9%), social media did not affect their performance as opposed to 53.5% of females.

Table 5: Gender-related addiction to online social network.

Variable	Addiction to online social network, n (%)		X ² (df)	P Value
	Not addicted	Addicted		
Gender			10.136 (1)	.001
Male	64 (50.4)	63 (49.6)		
Female	136 (68)	64 (32)		

Table 6: Gender-related access to social media and academic performance.

Variable	Access to social media and this has affected academic performance, n (%)		X ² (df)	P Value
	Not impact	Highly impact		
Gender			11.044 (1)	.001
Male	92 (71.9)	36 (28.1)		
Female	107 (53.5)	93 (46.5)		

Table 7: Addiction to use social media and students' academic performance.

Variable	Use of Social Media and Students'		X2 (df)	P Value
	Academic Performance, n (%)			
	Help my grade	Not help my grade		
User			1.228 (1)	.287
Addicted	40 (31.5)	87 (68.5)		
Not addicted	75 (37.5)	125 (62.5)		

Discussion

Our study examined the impact of social media usage on University of Sharjah undergraduate students. The main purpose of this study was to investigate if there was a difference in social media usage and its effect on academic performance based on gender.

This study was performed amongst 328 students, of whom 61% were female, and 39% were male. There were significant variations in responses among the year of study, where the majority of participants were from year one (53.4%).

The latter finding varies from the results of a study done in KSA, which was only 5% from year one students enrolled in the study.²⁷ This finding might be the reason that nowadays, younger generations are more interested in incorporating social media into their studying.

To investigate the effect of social media on academic performance and its relationship to gender, the obtained results are different than those of United Arab Emirates Population Statistics in 2018 that show the percentage of males to be 72%.¹⁵

By contrast, the findings of our study were consistent with those reported by the Education Statistics Centre in 2017 in the United Arab Emirates, which included a higher number of female than male students. Notably, local female students comprised 67.6% of the total number of local students enrolled in higher education institutions, such as UOS.¹⁶

Our results showed a significant association between gender and social media addiction, where males were significantly more addicted to social media than females. A similar difference in social media usage was found in various studies.^{17–19} This difference might be related to the fact that males use social networks to create potential friends and search for eligible people with similar interests.^{20,21} This result could also be explained by the possibility of the impact of traditional social roles and cultural norms associated with women in the Middle East, where females hide their identities and personal information and are reluctant to disclose or declare their social media usage.

Our findings also indicated an association between the academic performance of males and females. Specifically, female students reported that access to social media negatively impacted their academic performance. These findings were in agreement with those of previous studies,^{22,23} wherein most social media users were negatively impacted in terms of

academic performance. Contrary to our findings, some studies reported that frequent social media usage had no effect on students' studies^{24,25}; while other studies reported that usage of social media sites could improve engagement and academic performance of students.²⁶ This finding was due to the inability to understand social media complexities or the main purpose of social media usage. Nevertheless, this finding strengthened the premise of our study: that the socio-demographics of students and the predictors of their academic performance should be simultaneously considered when designing a specific measurement tool.

The misuse of social media networks has been reported.²⁷ Stated that students preferred supervision, guidance and education on how to use social media would be a solution for unauthorized use of social media. Furthermore, other students requested a standard legislative framework for using social media networks.²⁷

This current study has some limitations that should be addressed with future research. First, the sampling method, which targeted only UOS medical students, could be modified. Second, the participants were assessed only with a paper-based questionnaire. Third, most of the students were from their first year of study, which might prevent the results from being generalised across all years of study at UOS.

Future investigation should consider probability sampling methods, such as stratified random sampling, that covers all relevant students, to collect random student samples from different faculties as well as different years of study. Moreover, future research is required to understand the purpose for which students are using social media; this could examine the socio-demographic factors that contribute to social media usage among UAE students. Finally, online surveys would help in recruiting more participants and would also be more time efficient than paper-based questionnaires.

Conclusion

This study showed that males are more addicted to social media usage than females. In contrast, the academic performance of females is more affected by social media. Medical educators are waded to modify curricula to incorporate social media usage into effective learning strategies.

Recommendations

In the future, more studies are needed to find ways to identify the factors that impact the usage of social media among university students. The study could also be expanded to include specific types of social media.

Source of funding

This study was supported and approved by University of Sharjah's Research Ethics Committee grant (REC-18-01-29-01).

Conflict of interest

The authors have no conflict of interest to declare.

Ethical approval

Approval for this study was obtained from the Human Research and Ethics Committee of UOS. The purpose and methods used in this study were explained to each student who participated. Gathered data were kept confidential. No mark, name, or address was written on the questionnaire except for a code that was established by the research team. Participation in this study was purely voluntary. No pressure was applied to any participants. Specifically, they were not forced to answer any questions against their will.

Authors' contributions

RMN and TES designed and organized the data and corrected the final draft of the article. Data collection was completed by all authors. MMH, AAH, and MAH analysed and interpreted the data. All authors wrote the initial and final drafts of the article. All authors have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

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