

Impact of Internet and Social Media on Academic Performance, Social Interaction, and Mental Health among a Sample of Iraqi University Students

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ABSTRACT

Background: Social media is an online communication tool that is now a necessary component of our everyday existence. It enables people to communicate, exchange data, and produce web content.

Aim of the study: The study aims to display the effect of social media on academic performance, social interaction, and mental health among a sample of Iraqi university students.

Patients and methods: The study was conducted on 440 Iraqi students from different colleges, and the data were collected through a self-administered questionnaire.

Results: The majority of the sample (98.4%) mentioned they currently use social media, and the mobile phone was the most used device (95.9%) for viewing social media. The study found that social media has both positive and negative effects on social interaction and academic performance. Most of the participants (60.7%) and (21.6%) agreed and strongly agreed respectively that the use of social media is improving connection and information exchange with others. However, (30.9%) strongly agreed that social media may lead them to limit their time with friends and family members. Regarding academic performance, most of the sample (44.5%) strongly agreed that the use of social media may lead to wasting time specified for studying, and 26.8% of them strongly agreed that it distracted them from studying. More than half of those students (53.4%) agreed and strongly agreed that social media harms their academic performance in general.

Conclusions: The study concluded that social media has a significant impact on the academic performance, social interaction, and mental health of university students, and it is important to spread awareness among them to reduce excessive and bad use of social media.

Keywords: University Students, Academic Performance, Mental Health, Social Relationships, Communication, Social Media.

Article Information

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INTRODUCTION

Social media (SM) is defined as “any electronic-based communication tool, such as websites or applications for social networking, through which users can create online communities to share information, ideas, and connect with people”⁽¹⁾. Social networking sites

are one of the latest technologies, at present, that have changed the course of communications significantly. So, access to information has become available and various social networking sites have emerged like Facebook, WhatsApp, Messenger, Instagram... etc. to connect people all over the world and in all areas of life. In

addition, social networking sites and networks are characterized by ease of use and speed of spread which make the individuals spend a long time using it without feeling the passage of time. However, it is, like any technology, has those who support and those who oppose its use ⁽²⁾. Some see positive effects in that use as it may transcend time and space, provide information for all, and give anyone the opportunity to see the ideas and opinions of others and to dialogue with them without restrictions. Others believe that it has negative effects on the individuals who may prefer to communicate through it and distance from direct relationships with others from the family, relatives, and friends, which leads to the impact and contraction of realistic social relations ⁽³⁾.

The availability of smartphones, tablets, laptops, and other smart devices increased students' every day heavy reliance on social media. The student's life, social interaction, academic achievement, and even self-concept is all affected by this addiction (4,5). It was found that the extreme use of social media may have a negative effect on the user's personal and professional life (6,7). One undesirable effect is that it can easily lead clients to be habituated to it (8,9). A previous study demonstrated social media addiction and declining levels of self-esteem are significantly correlated (10). Students who spend more time on social media may have psychological and mental problems like depression and anxiety due to negative interactions in their communication with friends and families. University students are using social media for different reasons like reaching the scientific information that helps in their study and the availability of sites and groups for discussion makes them more liable for addiction. So, it is crucial to look at the functions that social networking sites serve for those valuable groups of society (11). The effect of social media use and academic success are highly reliant on the individual student; while

some use it to raise their academic performance, others find it more distracting (12).

In Iraq, one study was conducted on a sample of Kufa University students and found that students from the College of Medicine suffered from internet addiction with (54.6%) of them having moderate internet addiction ⁽¹³⁾. Another study was conducted to assess the impact of social media on academic performance, political views, and the economic situation of the students ⁽¹⁴⁾. Few studies aimed to assess the benefit of the Internet and social media to improve the interaction between students and lecturers, in addition to improving their English language ^(15,16). Even though a lot of studies examined the effect of social media on academic performance among university students, no recent study assessed the effect on their face-to-face social interaction with others and the effect on their mental health for different colleges. This study was conducted on students from Wasit University / Iraq to give a description of the impact of social media on students' educational achievement. In addition to its effect on communication skills and their mental health. It will be beneficial to spread awareness among them to reduce excessive and bad use of social media.

PATIENTS AND METHODS

The study population was Wasit University students from different colleges (scientific and humanitarian). The minimum required sample size for this study was 361 students according to the sample size equation calculation for cross-sectional studies ⁽¹⁷⁾. Considering that social media can affect 37.5% of students' academic performance from a previous study ⁽¹⁸⁾. Inclusion criteria include all students from colleges of Wasit University who agreed to participate and fill out the questionnaire aged above 18 years old. Samples were selected randomly from students' name lists by a computer program. The questionnaires

were distributed to the selected students by hand and were filled by the student himself/ herself. A total of 440 filled questionnaires were returned to the researcher for the final analysis.

The Study Design

This is designed as a descriptive cross-sectional study conducted during the period from 1st May till the end of July 2023 in Wasit province/ Iraq.

Subjects

This study included 440 Iraqi population was Wasit University students from different colleges (scientific and humanitarian).

Exclusion criteria

Those who were engaged within the lecture rooms during the data collection time or those who had exams were excluded.

Data collection:

The study compares how frequently students use the following social media sites: Facebook, Twitter, Instagram, Viber, YouTube, and WhatsApp. Three sections make up this questionnaire. The first demographic profile like age, gender, social status, place of living, type of college, stage, and grade in the last academic year. The second section included data about using social media, duration of usage, and the used instrument for that purpose. The third part includes questions related to the effect of social media on academic performance, social interaction, and mental health. Section three questions were answered by using structured items based on five Likert scale items to measure the impact of SM on the study variables starting with strongly agree, agree, neutral, disagree, and strongly disagree.

The instrument was designed depending on previously published articles ⁽¹⁹⁻²¹⁾ after some modification and translation from English to the Arabic language by an expert translator. The

validity was done by the researcher's specialist consultant in community medicine, and his comments and suggestions were incorporated into the final draft. The questionnaire was also pretested on 7 selected students for suitability of time and understandability of terms.

STATISTICAL ANALYSIS

The data were entered and analyzed by the Statistical Package for Social Sciences software program (SPSS) version 26. Frequency and percentage were used to describe the categorical data while mean and standard deviation (SD) were used for quantitative continuous data.

RESULTS

In this study, the data were collected from 440 Iraqi students with a mean \pm SD age (23.01 ± 2.49) years old ranging from 18 to 31 years. Table 1 shows the socio-demographic features of the study sample. Females represented about (71.8%) of the total sample, and about (63.2%) lived in city centers. Most of the participants (81.4%) were from scientific colleges, and more than one-quarter (25.7%) of the participants were in the sixth stage of college. The highest percentage of the students (38%) passed the last academic year with 'good' grade.

Table 1: Socio-demographic features of the study sample (n=440).

Variable	Category	Frequency	Percentage
Sex	Male	124	28.2
	Female	316	71.8
Social status	Single	371	84.3
	Married	69	15.7
Place of living	City center	278	63.2
	District or subdistrict	129	29.3
	Village or countryside	33	7.5
Type of college	Scientific	358	81.4
	Humanitarian	82	18.6
Stage of college	First	16	3.6
	Second	37	8.4
	Third	69	15.7
	Fourth	100	22.7
	Fifth	105	23.9
	Sixth	113	25.7
Student grade last year	Fail	2	0.5
	Pass	48	10.9
	Average	116	26.4
	Good	167	38.0
	Very good	87	19.8
	Excellent	20	4.5

The majority of the sample (98.4%) mentioned that they currently use social media. The highest percentage (40%) among them used it for a period (6-10) years followed by (37%) from 1-5 years. The mobile phone was the aperture used by most of them (95.9%) for viewing these media for a period reached more than 3 hours per day in about 58.9% of them as shown in Table 2.

Table 2: History of social media use among the study samples (n=440).

Variable	Category	Frequency	Percentage
Current use of social media	Yes	433	98.4
	No	7	1.6
Number of years of social media use	Never or less than 1 year	16	3.7
	1-5 years	166	37.7
	6-10 years	176	40.0
	More than 10 years	82	18.6
Number of hours of social media use per day	Never or less than 30 minutes	7	1.6
	30 minutes-1 hour	18	4.1
	1-2 hours	54	12.3
	2-3 hours	102	23.2
	More than 3 hours	259	58.9
Tools used for social media	Mobile phone	422	95.9
	PC or I-pad	18	4.1

Table 3 shows the effect of social media on social interaction. Most of the participants (60.7%) and (21.6%) agreed and strongly agreed that the use of social media is improving connection and information exchange with others. While (30.9%) were strongly agreed that social media may lead them to limit their time with friends and family members. Half of them (50.7%) also agreed about that. So, about (41.8%) and (22.5%) were agreed and strongly agreed that using SM may lead to social isolation. Most of the sample (56.8%) thought it may lead to a violation of personal privacy.

Table 4 shows students' responses to questions related to the effect of social media on academic performance. Most of the sample (44.5%) strongly agreed that the use of SM may lead to wasting time specified for studying. And 26.8% of them strongly agreed that it distracted them from studying. So, more than half of those students (53.4%) strongly agreed and agreed that social media harms their academic performance in general. Even though, 73.2% strongly agreed and agreed with the positive effect of SM on academic performance.

Table 3: Frequency distribution of participant response to the effect of social media on social factors (n=440).

Social factors	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Improve connection and information exchange with friends and family	95(21.6%)	267(60.7%)	65(14.8%)	10(2.3%)	3(0.7%)
Limit or reduce the time you spend with family and friends	136(30.9%)	223(50.7%)	60(13.6%)	15(3.4%)	6(1.4%)
This can lead to social isolation	99(22.5%)	184(41.8%)	105(23.9%)	49(11.1%)	3(0.7%)
This leads to a violation of privacy	59(13.4%)	191(43.4%)	111(25.2%)	76(17.3%)	3(0.7%)
Improve social connection in general	36(8.2%)	180(40.9%)	136(30.9%)	82(18.6%)	6(1.4%)

Table 4: Students' responses to questions related to the effect of social media on academic performance.

Academic performance	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Lead to wasting studying time	169(44.5%)	158(35.9%)	57(13%)	25(5.7%)	4(0.9)
Distract from studying	118(26.8%)	151(34.3%)	86(19.5%)	85(19.3%)	0(0%)
Had a positive effect on academic performance	105(23.9%)	217(49.3%)	74(16.8%)	37(8.4%)	7(1.6%)
Had a negative effect on academic performance	93(21.1%)	142(32.3%)	134(30.5%)	66(15%)	5(1.1%)

When students were asked about the magnitude in which SM affects their regular studying time, around (44.6%) mentioned a higher effect as shown in figure 1. Only 4.8% said it was not affecting and 5.9% mentioned a very little effect.

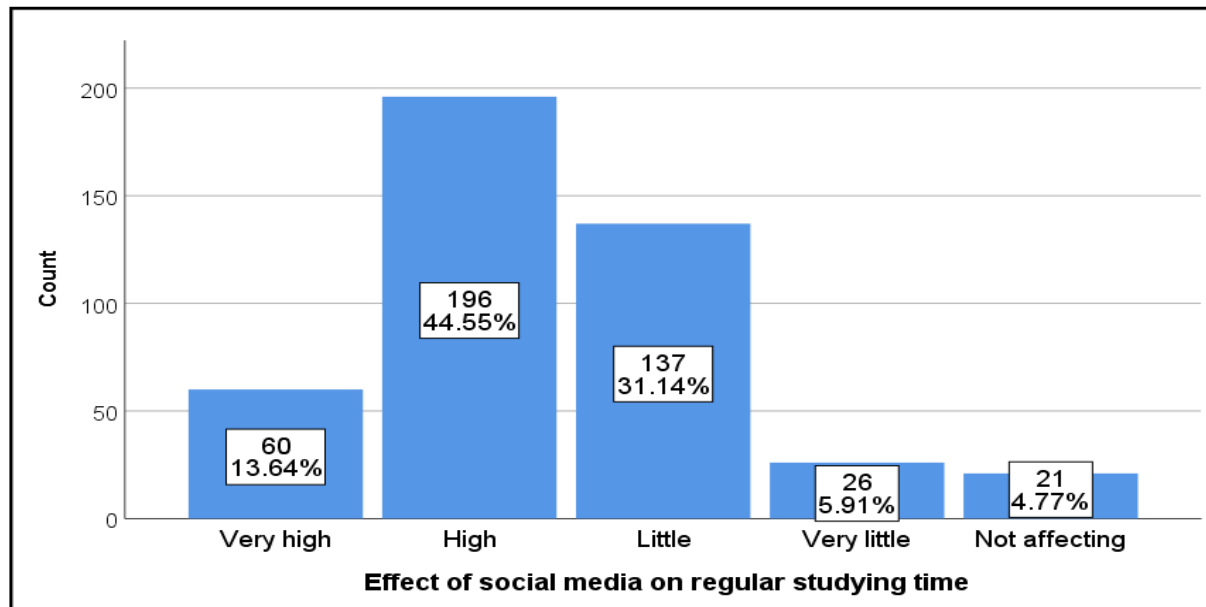


Figure 1: Effect of social media on regular studying time.

In Table 5, the effect of social media on psychological and mental health was demonstrated. More than one-third of the participants (33.2 %) agreed and strongly agreed that the SM may cause hostility, and about (45%) agreed and strongly agreed that the SM causes loss of self-esteem. Sleeping disturbances can also arise from SM as most of the samples (72.3%) mentioned. Leading to a reduced concentration and feelings of tiredness as 65% of the study participants agreed and strongly agreed with this.

Table 5: Effect of social media on psychological and mental health of the study samples.

Psychological and mental effects	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Causing hostility	33(7.5%)	113(25.7%)	137(31.1%)	157(35.7%)	0(0%)
Sleeping disturbance	107(24.3%)	211(48%)	46(10.5%)	66(15%)	10(2.3%)
Loss of self-esteem and passion	66(15%)	136(30%)	109(24.8%)	107(24.3%)	22(5%)
Feeling tired, low energy, and reduced concentration	88(20%)	198(45%)	80(18.2%)	65(14.8%)	9(2%)

Figure 2 shows the effect of social media on sleeping time. The highest percentage of the sample (40%) mentioned a little effect on their sleeping time by social media followed by (32.06%) who represented a high effect on their sleeping time by use of social media.

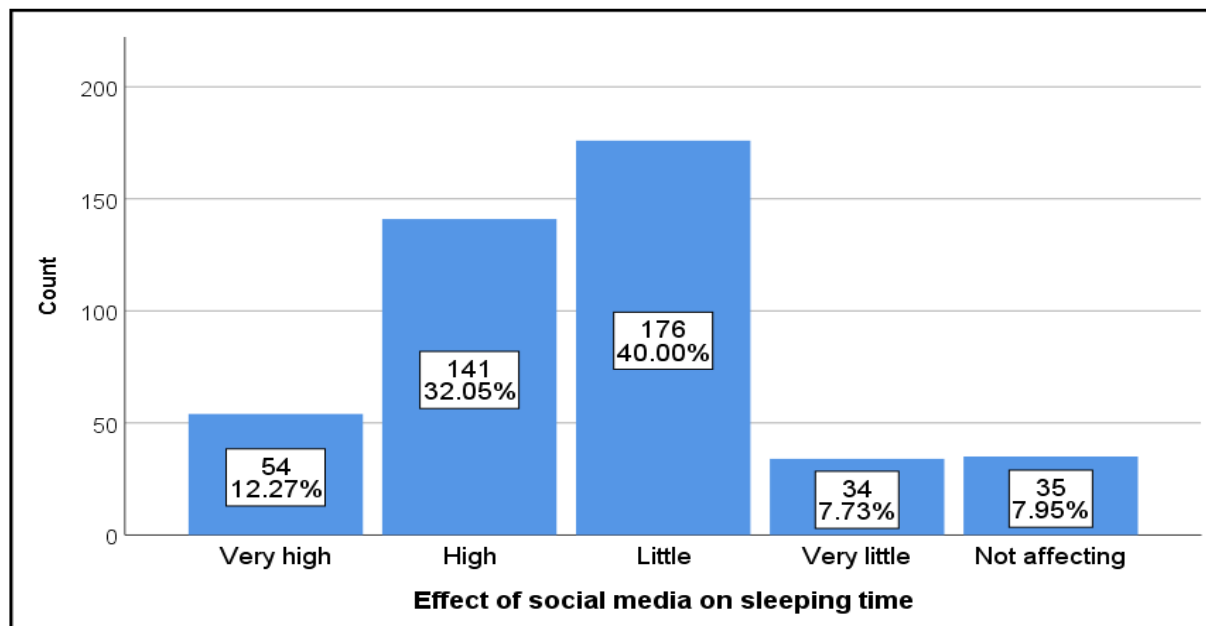


Figure 2: The effect of social media on sleeping time among the study sample.

DISCUSSION

Social media usage is currently one of the most common activities commonly distributed among children, adolescents, and adults approximately in all societies. Social media provides an easy way of entertainment and communication, in addition to accessing up-to-date information and news ⁽²²⁾. This study included 440 Iraqi students, from both scientific and humanities colleges. In this study, the prevalence of using social media among university students was 98.4%. This finding coincides with Perrin's study ⁽²³⁾ which stated that the use of social media among American adults aged 18-29 years, who represent a high percentage of university students, rose from 12% in 2005 to 90% in 2015. Also, a 93.4% prevalence was reported among medical students in Turkey. The reported high prevalence rate is attributed to the integrated use of social media into the lifestyle of the younger generation, as well as the current popular use of social media as a means of communication between college administration and students ⁽²⁴⁾.

Regarding the time spent on social media, this study shows more than 3 hours per day spent on social media, this finding agreed with

the findings of a previous study ⁽²⁵⁾ in which students reported that they spent a lot of time reached to 6-8 hours daily on social media. These findings also agreed with the findings of Ajewole and Fasola ⁽²⁶⁾ who reported that students spend 6-7 hours daily on social media. The finding of the study disagreed with Chaffeys' report in 2016, which found that students spend only 2 hours daily on social media.

In the current study, students mentioned that social media has both positive and negative effects on social interaction. The majority of participants agreed and strongly agreed that social media improves connection and information exchange with others. Another recently published study found a positive relationship between using SM with social interaction among youth and this positive effect is perhaps decided by the level of trust present inside online communities ⁽²⁷⁾. It is important to note that the relationship between social media use and social interaction is complex and may depend on various factors, such as the type of social media use and the individual's personality and social context ⁽²⁸⁾. However, a significant

proportion of participants (30.9%) strongly agreed that social media may lead them to limit their time with friends and family members, and half of them (50.7%) agreed with this statement. The majority agreed that social isolation situations may occur due to excessive use of SM and depending on hours spent using it. The same result was shown among Saudi Arabian students who mentioned negative effects on their relations with friends and families in about 59%⁽²⁹⁾.

Additionally, most of the sample (56.8%) thought that social media use may lead to a violation of personal privacy. These findings are consistent with the concerns expressed in the search results about social media's impact on privacy. Social media platforms are designed to get users to share personal information willingly, and this can lead to breaches of privacy^(30,31). Overall, the results suggest that social media has both positive and negative effects on social interaction and privacy. So, it is recommended to be aware of these effects and to use social media responsibly and mindfully. Social media users should take steps to protect their privacy, such as adjusting their privacy settings and being cautious about sharing personal information online.

The results indicate that while a majority of students strongly agreed and agreed with the positive effects of social media on academic performance, a significant portion of the sample strongly agreed that the use of social media may lead to wasting time specified for studying, and more than one-quarter of them strongly agreed that it distracted them from studying. This suggests that social media can have both positive and negative impacts on students' academic performance. The positive impact of social media on academic performance is also found in the findings of Kabilan et al.⁽³²⁾ who reported that students who use social media learn correct spelling, sentences, pronunciation, and essay writing by Googling the words into

nets. Besides, corroborated by Mehmood and Taswir⁽¹¹⁾ who also found that social media is useful in improving correct spelling and writing for students. A lot of positive effects of social media on academic performance were reported like enhancement of online learning and improved Creative Element⁽³³⁾. On the other hand, harming academic performance by SM was shown in Ezeji's⁽³⁴⁾ study which revealed that the rate of social media usage among students was very high and harmed students in general grade. Another study among medical students in China found that students thought SM caused wasted time and distracted them from studying⁽³⁵⁾. The impact of social media on academic performance can vary depending on factors such as personality traits, time spent on social media, and the purpose of use⁽³⁶⁾.

A recently published study indicated that social media can cause mental disorders in students such as sleepiness, isolation, violent action, depression, insomnia, and anxiety⁽³⁷⁾. In this study, more than one-third of participants agreed and strongly agreed that SM causes hostility, nearly half agreed and strongly agreed that SM causes loss of self-esteem, and most of them suffered from sleepiness. This finding corroborated Zubair et al. study that shows social media causes sleepiness, isolation, and mental disorders⁽³⁸⁾. Hostility which can be caused by social media, is associated with an increased risk of adverse cardiac events and poor health outcomes. It may promote poor health behaviors such as smoking, physical inactivity, and medication nonadherence. It is important to be aware of the potential negative effects of social media and to take steps to manage stress and promote healthy behaviors⁽³⁹⁾. Studies have found diverse results about the effect of social media on mental health. Some found it may help enhance connection, increase self-esteem, and improve a sense of belonging. But others found that it can lead to tremendous stress, pressure to compare oneself to others, and increased sadness and isolation⁽⁴⁰⁾. Sleep

problems that arise due to SM can also affect the academic performance and physical function of the body ⁽⁴¹⁻⁴³⁾. Even some mentioned no difference between those with high and low-grade academic performance with their sleep style ⁽⁴⁴⁾.

CONCLUSIONS

Social media can be considered a double-edged sword for the whole population and especially for university students. It can both positively and negatively affect their social communication with friends and society, their academic performance, and even their mental health and psychology.

RECOMMENDATIONS

It is recommended to guide those students to use SM in a way that makes them get the maximum benefits for improving their communication skills, academic results, and mentality. So, awareness should be distributed in addition to more research on different aspects of social media. It's so important to make another study for smaller age groups like primary and kindergarten.

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