

Social Media Usage and Self Perception among Dental Students at King Abdulaziz University, Saudi Arabia

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Abstract

Background: Facebook and other social media are attractive to those in the field of medical education. It can affect human being as some researches show that it has positive effect while others revealed the opposite. This study aimed to describe the pattern of Facebook use among the dental students at King Abdulaziz University and to assess its effect on behavior, social interactions, academic performance and study as well as health status.

Methods: This is a cross sectional study targeted the undergraduate dental students in the academic year 2016-2017. A self-administered questionnaire was distributed online to all target students. It included 4 sections asked about the pattern of Facebook use and its purpose, the effect of Facebook use on behavior, study, academic performance and health of the target students. Data was analyzed using the Statistical Package for the Social Sciences (SPSS) version 16.

Results: Whatsapp (82%) and Facebook (62%) were the most common types of social media used by the students and about 50% of them used Facebook for only 30 minutes per day. Considerable number of the students were using Facebook for educational purposes (66%) and felt that it made the social life better and believed it affected the time they spend with their friends and family (38%). They perceived Facebook as a source of inspiration and motivation (40%) about one third of them felt lonely despite of their many Facebook friends. Feeling less active (58%), having affected eyesight (33%) and headache (45 %) was reported after using Facebook by the students. About 31 % of them decided that Facebook had a negative effect on their study and 33.6 % of them believed that Facebook affected their grade point average (GPA).

Conclusion: Although having some positive impact, use of Facebook has also negative impact on the students social interactions, behavior, health, study and academic performance as perceived by the dental students.

Keywords: FACEBOOK, SOCIAL MEDIA, DENTISTRY, HEALTH BEHAVIOUR, GPA

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Introduction

Nobody can deny that the implication of

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communication was greatly changed after inception of social media. It was reported that “Facebook was originally produced for Harvard University students in 2004, as a method of socializing after that it was opened for use by the general public in 2006 since that date it becomes now one of the best known social networking sites used by

people of all ages and professions” adding to being easily accessed through computers, laptops, tablets and cellular phones (1). There are 1.4 billion daily active users of Facebook on average for December, 2017 (2). Facebook is predominantly preferable by young adults as more than fifty percent of its members are between 18-34 years old. This age group represents persons who are at the start of their educational and professional career and needed to develop their professional characters (3). Most of students at university age, “known as digital natives, Generation Y (Gen Y), Net Generation (Net Gen), and Millennials” are much better than their teachers in technology practice (4). It was stated that “University life without Facebook is almost unthinkable” as shortly after being launched in 2004, it rapidly became a common and basic tool for social communication among the students (5). Social networking websites in general and Facebook in specific were attractive to those in the field of medical education (6). About 96 % of medical students at USA habitually use Facebook which they considered it beneficial for their social life and academic pursuits (7). It was reported that “social media tools can be used safely in medical education settings and that their use may have a positive impact on learner outcomes” (8).

Majority of the social media users don't recognize its negative effect on their lives as “they are already addicted to it”. A controversy exists in the literature about how social media in general and Facebook in specific can affect well-being as some researches show that it has positive effect while others revealed the opposite. Among the negative effects of Facebook is its impact on the mental health which include changes in “self-esteem, sleep disorders, and high percentage of depression among students” (9).

There is no sufficient data about the magnitude and the pattern of Facebook Usage among dental students in Arabic countries in general and Saudi Arabia in specific. Therefore this study aimed to describe the pattern of

Facebook use among the dental students at King Abdulaziz University, one of the biggest Saudi universities, and to assess its effect on behavior, social interactions, academic performance and study as well as health status.

Materials and Methods

This study was approved by the biomedical research ethics committee at the Faculty of medicine, King Abdulaziz University (KAU). It was conducted on the undergraduate dental students in the 3rd, 4th, 5th and 6th years at the Faculty of Dentistry, KAU, Jeddah, Saudi Arabia during the academic year 2016-2017.

Data Collection Tool

This cross sectional study utilized a self-administered questionnaire that was implemented on medical students in a study conducted by Farooqi et al (10). The questionnaire included some questions asked about the demographics of the students in addition to forty questions categorized into four sections. Section one included questions asked about the pattern of Facebook use and its purpose. The second section included questions asked about the behavior effect of Facebook use and the third section asked about the study and academic performance. The fourth section asked about the students' past experiences and the future plans regarding the use of Facebook. The questionnaire was plotted on Google Docs and its link was sent to all students who were asked to fill it anonymously.

Statistical Analysis

Data acquired from the participant through the questionnaire was analyzed using the Statistical Package for the Social Sciences (SPSS) version 16. The results of the categorical variables were presented in the form of number and percentages.

Results

Character of the Participating Students

The questionnaire of this study was distributed

to 364 students and 279 of them responded to the questionnaire (response rate was 76.6%). Study of the demographic characters of the students included in the study showed that about 51% of the participants were male and about 53% of them were in the age range from 23 to 25 years. About 62% of the participants had one smart phone while about one third of them had two smart phones. Half of the participants had i pad while about 22% of them had tablet. About 65% of the participants had access to the internet all of time over the day and about 46% of them spend between 3 and 4 hours using the social media (Table 1, Figure 1).

Characteristics of the Use of Facebook

Whatsapp, Facebook and Tweeter were the most common types of social media used by about 82%, 62% and 56% of the students respectively. Whatsapp, Instagram and Tweeter were more or less equally preferred by the participants. About 60 % of the participants use their smart phone all the time to access the social media. About half of the participants said

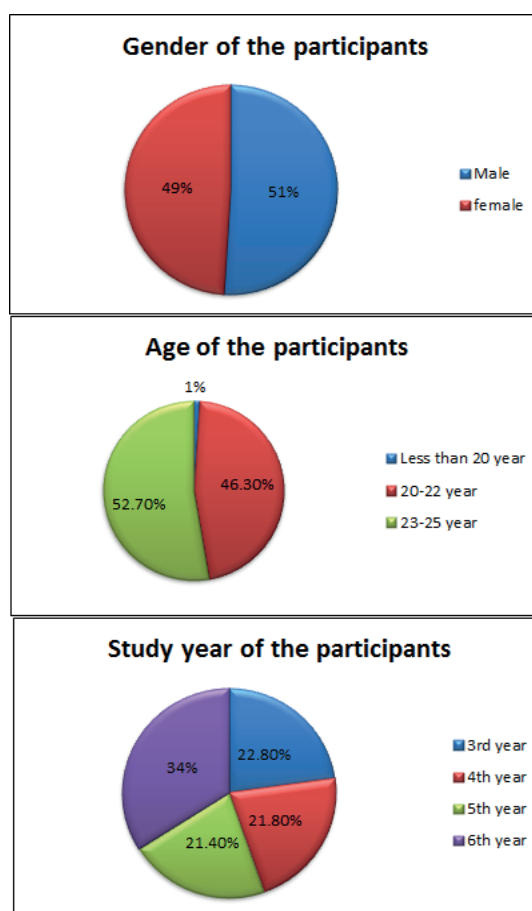


Figure 1: Demographic character of the study subjects

Table 1: Pattern of Facebook use by the participants

Variables	N	Percent
How many smart phones do you have?		
None	2	0.7
One	181	61.6
Two	97	33
Three	14	4.8
What other smart devices do you have?		
Tablet	65	22.1
i pad	147	50
Others	43	14.6
None	39	13.3
How often do you access internet?		
I do not have access	2	0.7
Sometimes	8	2.7
Most of times	92	31.3
All of time	192	65.3
In average, how many hours a day do you spend in social media?		
1-2	90	30.6
2-5	59	20.1
3-4	135	45.9
More than 4	10	3.4

that they used Facebook for only 30 minutes per day while 16% of them use it for more than four hours per day. About two thirds of the participants are using Facebook for educational purposes and about 60 % of them liked to use Facebook for their studies while about 23% of them are using it for networking and social purposes (Table 2).

Effect of Using Facebook on Behavior

Regarding the effect of face book on behavior of student, interestingly, about one third of the participant felt that Facebook make the social life better and about one third of them felt that

Facebook make the social life worse. About 38 % of the students believed that Facebook affect the time they used to spend with their friends and family while about half of them did not believe that. Only 6% of the participants were more active on the Facebook than in the real life while about 20% of them were equally active on both Facebook and real life (Table 3, Figure 1).

About 40% considered Facebook as a source of inspiration and motivation. About 13% of the participants spend most of their times posting nice pictures on the Facebook. When asked about the perception of the participants friends about their personality, 55% and 35%

Table 2: Types, frequency and purposes of social media used by the participants

Variables	Number	Percent
Which social media do you use?		
Facebook	183	62.2
Instagram	96	32.7
Whatsapp	242	82.3
Tweeter	192	56.3
Neutral	17	5.8
The social media you prefer is		
Facebook	26	8.8
Instagram	104	35.4
Whatsapp	171	37.8
Tweeter	111	37.8
Neutral	14	4.5
How often do you use your phone to access social media?		
All time	174	59.2
Most time	96	32.7
Sometime	17	5.8
I do not use it	7	2.4
How many hours do you use Facebook per day?		
More than 4	47	16
2-4 hours	35	11.9
1-2 hours	51	17.3
30 minutes	161	54.8
Why do you use Facebook?		
For knowledge and educational purpose	199	67.7
For networking and social purpose	66	22.4
To make new friends	14	4.8
Just for fun	15	5.1
Would you like to use Facebook for your studies?		
Strongly agree	43	14.6
Agree	135	45.9
Disagree	50	17
Strongly disagree	22	7.5
Neutral	44	15

Table 3: Effect of Facebook on behavior of the participants.

Variables	Number	Percent
In your opinion, what is the effect of Facebook on you social life?		
Makes social life excellent	16	5.5
Make social life better	95	32.3
Neutral	33	11.2
Make social life worse	99	33.7
It has no effect	51	17.3
Facebook affects the time that you used to spend with your friends and family.		
Strongly agree	30	10.2
Agree	84	28.6
Disagree	97	33
Strongly disagree	49	16.7
Neutral	34	11.6
Are you more socially active on Facebook or in real life?		
I'm strongly more active on Facebook	18	6.1
I'm more active on Facebook	25	8.5
Neutral	94	32
Equally active on both	63	21.4
Inactive on either one	94	32
Facebook is a source of inspiration and motivation		
Strongly agree	13	4.4
Agree	110	37.4
Disagree	84	28.6
Strongly disagree	25	8.5
Neutral	62	21.1
Are you curious about your posted pictures and spend a lot of time displaying nice pictures on Facebook?		
All time	21	7.1
Most of time	38	12.9
Neutral	86	29.3
Sometimes	117	39.8
Never	32	10.9
How do you and your friends comment on your real life personality?		
Fun	164	55.8
Shy	56	19
Depressed lonely	17	5.8
Rude	4	1.4
Not determined	53	18
How do you and your friends comment on your Facebook personality?		
Fun	102	34.7
Shy	43	14.6
Depressed lonely	18	6.1
Rude	9	3.1
Not determined	122	41.5

of the participants chose “fun” on Facebook and in real life respectively. About 60 % of the participants use Facebook very late at night. About 45% of the students did not perceive themselves as aggressive persons as many Facebook users and about two third

of them stated that they sometimes wake up at middle of night to check their Facebook account. Interestingly, about one third of participants stated they still feel lonely despite of their many Facebook friends (Table 3, Figure 2).

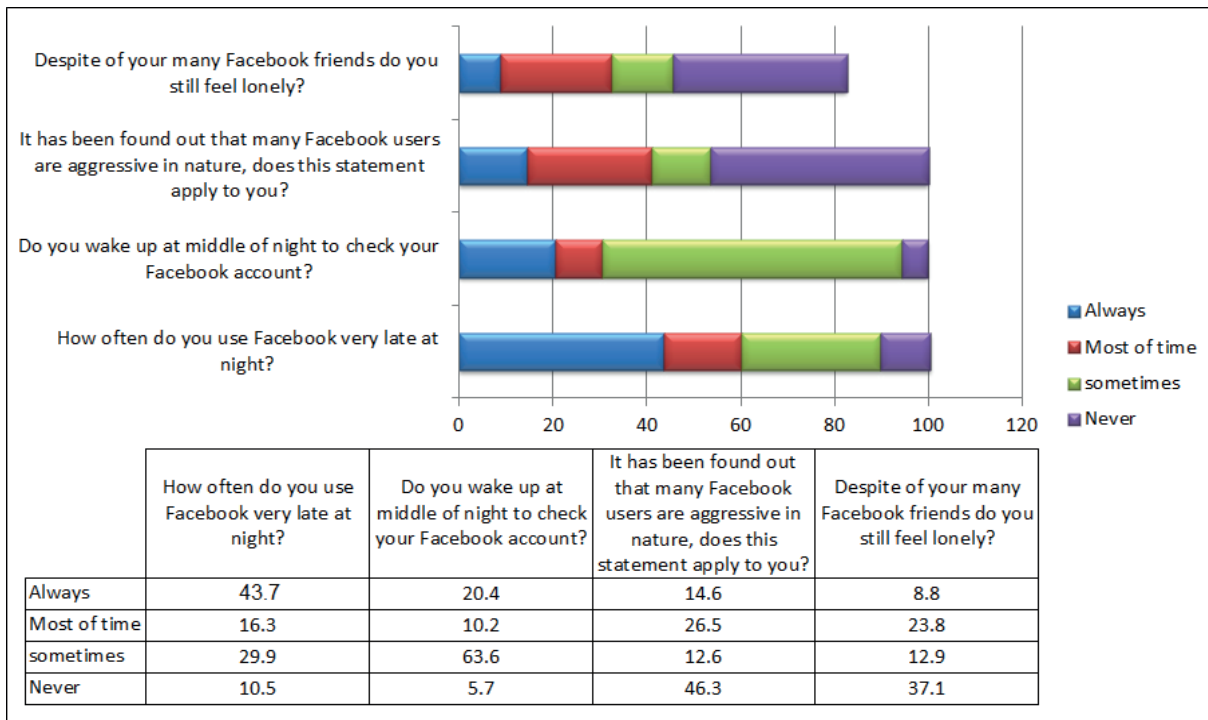


Figure 2: Effect of Facebook on behavior of the participants.

Effect of Using Facebook on Students' Health

Upon studying the effects of Facebook on students' health it was found that about 58 % of the participants reported that they felt less active after using Facebook while about 12 % reported they don't feel any change. About one third of the participants felt that the use of Facebook for a long period of time definitely affected their eyesight while about 37% felt their eyesight was affected a little. About 45 % stated they always or sometimes get headache after using Facebook for a long period of time, about 40% sometimes experience mood changes in daily life and about 55% reported that Facebook never affected their appetite. Weight gain was reported by about 45 % of the participant while 35% reported weight loss. Backache due to posture was reported by about 65% of the participants. Interestingly, about 40% of participants were irritated when anyone disturbs them while using Facebook while 40% never get irritable (Table 4).

Effect of Using Facebook on

Students' Study

It was observed that about 54% of the students use Facebook during their study and more than 30 % of them decided that Facebook had a negative effect on their study while about 45 % stated that it didn't have a negative effect. More than 60% of them use Facebook in their preparation for exams and tests and about 35% of them believed that Facebook affected their GPA. Interestingly more than 57% of the participants recommended using Facebook in learning and studying (Table 5).

Students Future Plan in Using Facebook

Only about one third of the participant had some difficulty in their daily functions if they can't log in to their Facebook accounts for an entire day while the majority didn't have such difficulty. About 40% of the participants attempted to decrease the time they spend on Facebook. Interestingly, one third of students will keep using Facebook while about 25% are planning to stop using it and more than 37% of them didn't considered themselves as Facebook addict (Table 6).

Table 4: Effect of Facebook on health of students

Variables	Number	Percent
Did you feel any difference in your energy level after using Facebook?		
Yes I feel a lot more active	58	19.7
Yes I feel more active	33	11.2
Yes, I feel less active	169	57.5
No, I don't feel any change	34	11.6
Did the use of Facebook for a long period of time affect your eyesight?		
Yes Definitely a lot	98	33.3
Yes It affected it	47	16
Yes A little	109	37.1
No It didn't affect it	40	13.6
Do you get headaches after using Facebook for a long period of time?		
Always	65	22.1
Sometimes	65	22.1
Rarely	60	20.4
Never	104	35.4
Do you experience mood changes in daily life?		
Always	62	21.1
Sometimes	122	41.5
Rarely	53	18
Never	57	19.4
Has Facebook affected your appetite?		
Always	42	14.3
Sometimes	47	16
Rarely	45	15.3
Never	160	54.4
Did you gain weight lately?		
Yes a lot	44	15
Yes a little	90	30.6
Not really	93	31.6
No	67	22.8
Did you lose weight lately?		
Yes a lot	47	16
Yes a little	53	18
Not really	114	38.8
No	80	27.2
Does your posture causes backache to you?		
Always	71	24.1
Sometimes	124	42.2
Rarely	36	12.2
Never	63	21.4
Do you get irritated when anyone disturbs you while using Facebook?		
Always	40	13.6
Sometimes	84	28.6
Rarely	53	18
Never	117	39.8

Table 5: Effect of Facebook on study of the groups

Variables	Number	Percept
Does Facebook have a negative effect on your studies?		
Always	25	8.5
Sometimes	66	22.4

Rarely	48	16.3
Never	133	45.2
Not determined	22	7.5
Do you use Facebook in during studying		
Always	57	19.4
Sometimes	100	34
Rarely	69	23.5
Never	46	15.6
Not determined	22	7.4
Do you use Facebook in your preparation for exams and tests?		
Always	75	25.5
Sometimes	111	37.8
Rarely	51	17.3
Never	34	11.6
Not determined	23	7.8
Did you think that Facebook affect your GPA?		
Always	28	9.5
Sometimes	71	24.1
Rarely	50	17
Never	107	36.4
Not determined	38	12.9
Do you recommend using Facebook in learning and studying?		
Always	61	20.7
Sometimes	116	37.4
Rarely	48	16.3
Never	40	13.6
Not determined	35	11.9

Table 6: Past experiences and future plans of students regarding use of Facebook

Variables	Number	Percent
Do you have any difficulty in your daily functions, if you can't log in to your account for an entire day?		
Always	43	14.8
Sometimes	57	19.4
Rarely	58	19.5
Never	116	39.5
Neutral	22	7.5
Did you ever try to reduce your time spent on Facebook?		
Always	39	13.3
Sometimes	80	27.2
Rarely	42	14.3
Never	91	31
Neutral	42	14.3
What is your future plan regarding time spent on Facebook?		
I'll increase my time on Facebook	25	8.5
I'll keep using it in future life	98	33.3
Neutral	62	21.1
I'll decrease my time on Facebook	37	12.6
I'll stop using it	72	24.4
In your opinion, do you think that you are a Facebook addict?		
Always	27	9.2
Sometimes	54	18.4
Rarely	75	25.4
Never	109	37.1
Neutral	29	9.9

Discussion

“Information and communication technologies have grown greatly over the last few years, which was associated with the appearance of innovative new methods of teaching and learning” (11-12). Among the benefits of using social media tools is “the creation of community as social media promotes communication, engagement, and collaboration” (13-14). On the other hand, Facebook addiction is a new term invented by psychiatrists. It was reported to be associated with disturbing the sleeping habits, health and attentiveness in studies and communication abilities of real life (10).

In this study, Whatsapp rather than Facebook was chosen by a larger percent (82 % versus 62%) of the students to be the common type of social media they use. The availability on the internet access, smart devices, and the popularity of these types were behind their wide use among students. In another study, medical students at the University of Ottawa chose Facebook, YouTube and Twitter as the top 3 social networking sites (15). About half of the students participated in this study said that they used Facebook for only 30 minutes per day while 16% of them use it for more than four hours per day. This time was less than what have been indicated in other countries. Large percent (about 40%) of the Pakistani Facebook users spend 1–2 hours daily on Facebook (10). The mean time spent on Facebook by Michigan State University (MSU) undergraduate students was 1.07 ± 1.116 hour per day and most of them were using Facebook to keep in touch with friends and relatives (16). In another study on undergraduate college students in USA, most of students spent less than 1-2 h daily on Facebook (17).

About 60 % of the students, in this study use Facebook very late at night and this was a significantly higher percent compared to that recorded by Farooqi et al. (10) in his study on Dow University students in Pakistan (40%) while this percent was consistent with that reported by Jha et al. (18) during their study

on medical college students in Nepal. Young reported that “disrupted sleep patterns of the university students due to Facebook use late at night was behind impairment of their academic performance” (19). This study showed that the majority of the students reported they are using Facebook for educational purposes while about one fifth are using it for networking and social purposes. This finding was contradicted with that of Hew 2011 who reported that “Facebook has very little educational value and the participants mainly used it to keep in contact with the others” (20). Another two studies conducted by Raacke et al. (21) and Gray et al. (22) recorded higher percentage of Facebook use in academic purpose (10.9 and 25.5 % respectively). This variance might be attributed to academic nature and regulations of internet in place in these institutions. “Interactions with colleagues, sharing resources, post-lecture questions, the ability to review quizzes before exams, and the ease of tracking information” represented the reasons behind the use of social networking sites by medical students at the University of Ottawa (15).

About 40% of students considered Facebook as a source of inspiration and motivation which was in disagreement with what was reported by Farooqi et al. (10) and Jha et al. (18) About 13% of the students in this study were curious about posting nice pictures on the Facebook versus 50% of the participants in other studies (23). About 38 % of the participating students believed that Facebook affects the time they spend with their loved persons of their friends and family while about half of them did not believe that. This observation was reported by a previous study (10). Addiction to Facebook, which is denied by most of the young generation, might be behind this observation. It was reported that Facebook users are mostly involved in Facebook which takes them away from their real life situations (24). Laziness and loss of activity, affected eyesight, headache and backache were all reported by considerable percentage of the Facebook users among the students participating in this study. These

health effects have been chaired by excessive use of internet, computers and Facebook. These negative impact were among the negative impact of the Facebook on its users (25).

More than 30 % of the students decided that Facebook had a negative effect on their study about 35% believed that Facebook affected their GPA. On the other hand about 65 % of Facebook users in Nepal medical college admitted that Facebook negatively affected their studies Jha et al. (18) which was higher than the finding of Farooqi et al. (10) One third of the students admitted difficulty in their daily functions if they can't log in to their Facebook account for an entire day and about 40% were irritated when anyone disturbs them while using Facebook. These finding was not far from those reported by Masthi et al. (26) and Jha et al. (18) About 40% of the students, in this study claimed they had many attempts to decrease the time they spend on Facebook versus more than 70 % claimed the same issue in Jha et al. (18).

Facebook use was reported to be significantly associated with adverse health effects as well as unhealthy behaviour was observed on Malaysian 316 medical students by Al-Dubai et al. (27) They have recommended that "higher educational institutions should create awareness and safer practices for their students. Additionally, they have advocated regular health screening of students to avoid the possible health consequences due to Facebook use". Although social media are frequently blamed, they have the ability to build interactivity, engagement, and collaboration. The accountability of educators is to integrate the use of social networking sites into the existing curricula to best benefit the students (15).

Conclusion

In conclusion, too much use of Facebook is associated with many negative effects on the students social interactions, behavior, health, study and academic performance as perceived

by the dental students. These negative effect seemed to exceed the positive effects. Involvement of all parties; students families, universities, and Facebook authority should be started in order to limit excessive use of social media by students and its negative impact.

Conflict of Interest

The author declares no conflict of interest.

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