Does the Nature of the Study Affect Internet Use and Addiction? Comparative- Study in Benha University, Egypt

Eman M. Araby, Marwa S-E. Abd El-Raouf, Sheref M. Eltaher

Department of Public Health and Community Medicine, Faculty of Medicine, Benha University, Benha, Egypt **Corresponding author:** Sheref M. Eltaher, Email: <u>sherif.abdelmoneim@fmed.bu.edu.eg</u>

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ABSTRACT Introduction: The impor because it is one of the m business and education. locations overweigh the Facebook and Internet Egypt. Aim of the work: To utilization, and effects o Benha university and to in of internet. Subject& Methods: A co University of Benha duri 2019). The study enrolled faculties. A self- administ as a tool for data collecti demographic data, intern Young Internet Addiction Results: Most all stude education reported "hom and 97.7%) and mobile Afternoon and evening t for students of both fa differed significantly regg vs. 51.5% used internet	tance of using internet is increasing now nost effective tools in many fields as science, . The negative effects of social networking positive ones. There are few studies about addiction among youth and adolescent in determine prevalence, pattern of internet f internet and Facebook among students of nvestigate the role of study nature on the use mparative cross sectional study conducted in ng 2 nd term of the year of academic (2018- 8 (755) students from medicine and education tered semi structured questionnaires is used ion. It included some questions about socio- et and Facebook, physical health hazards and	daily).Entertainment was the mos was significantly higher among 42.5%).Students from faculty of e hazards than medical students du and all these differences were of performance was the most affect students (62.3% vs. 46.5%). The problematic internet users(PIUs) (63.7% for faculty of education), bu were more among students of fac Family income and sex were sig among the all students. Conclusion: Facebook and interr university students. Students from more physical health hazards an Health education of university st internet and social media is essent Key words: Internet, Facebook, Ur Correspondence: Sheref M. Eltaher Department of Public Health and Medicine, Benha University, Benh E-mail: sherif.abdelmoneim@fmed DOI: 10.5530/srp.2020.3.59	t common purpose for usage and g medical students (60.8% vs. ducation experienced more health le to internet and Facebook usage f statistical significance. Academic ed from point of view of education majority of students are potential (70.5% for faculty of medicine vs. t actual problematic internet users sulty of education (13% vs. 1.5%). gnificant predictors of YIAT score that use affects the social life of n faculty of education experienced d higher percentage of PIUs. So tudents to moderate their use of tial. hiversity students, Benha, Egypt.

INTRODUCTION

Social media is a group of online communications channels that allow the creation and sharing of user-generated content. It is easy and anyone with basic internet skills can create and manage an online Social Network Sites (SNS). Simplicity of use is the major attribute of its popularity (1). The importance of using internet is increasing now because it is one of the most effective tools in many fields as science, business and education (2). The internet usage statistics and the number of internet users has increased in Egypt from 34.1 million to 50.7 million in 2013 2019, respectively (3). More than 80% of the Egyptian internet café clients are young people (4).

90% of young adults used social media like Facebook, Twitter, Instagram in year 2015 (5). The university students spend between 8 h to 10 h per day browsing, liking posts, and posting on social media (6).

Internet addiction as a disorder in which the individual becomes unable to control themself and this causes marked distress or functional impairment (7). The dominant view is that it is a "behavioral addiction." Behavioral addiction refers to non-substance addiction. But it has similar features as drug addiction (e.g., withdrawal, craving, etc.) (8).

The excessive use of social media affects mental and physical health, and academic achievement. Also, it leads to aggression, violent behavior and makes students lethargic and unmotivated to create real contact with other persons (9).

Frequent Facebook utilization influences the ability to interact and communicate in the real world, whereas social skills step by step decrease. The psychiatrists developed a new phrase related to excessive Facebook usage called Facebook addiction that can affect health and wellbeing of people like substance addiction as it affects sleeping habits, studies interest and coping with real life (4).

Facebook and Internet addiction among youth and adolescent have been studied extensively worldwide, whereas in Egypt there is few studies about this problem. So the objective of this study was found prevalence, pattern of internet use, reasons and effects of internet and Facebook among students of Benha university and to investigate the role of study nature on the utilization of internet.

Subject Methods

It is a comparative cross sectional study conducted in Benha University. The field work was carried out in the 2nd term of years 2018 -2019 from the beginning of April 2019 to the end of May 2019. Data were collected 3days /week. Benha University includes 15 colleges (7 practical & 8 theoretical). We chose the Faculty of Medicine for convince as an example of practical colleges & Faculty of Education was selected by simple random sampling as an example of theoretical colleges. The least calculated sample size by Epi-Info V. 7.1. Statistical program of 5% confidence limit at 95% confidence level was 696 students (352 out of 4085 from faculty of education and 344 out of 3265 from faculty of medicine). Students were chosen by cluster sample technique, i.e. the college's population are divided to sampling unit one section was chosen from each grade of both colleges by simple random sample. The number of students in each section or specialty ranged from 40 to 50.

Inclusion criteria

- □ Active internet user for at least for 1 y
- Willing to give verbal consent
- Exclusion criteria

□ Not using internet or using it for less than one 1 y. The study tool:

The study tool for data consisted of some self- administered semi-structured questionnaires with 2 sections;

Section I questions about internet and Facebook

- □ Socio-demographic and academic data of the students (residence, sex, age family income and grade of previous year).
- Patterns of internet (Internet access place, daily hours, device, use years, predominant time, and type of internet activity).
- Patterns of Facebook use (Effect of Facebook on social life, cause of use effect on time that you used to spend with your friends and family, Facebook, and attempts to give up).
- □ Adverse effects of using Facebook and internet.

Section II Young's Internet Addiction Test (YIAT)

It consists of 20 questions wherein each item is scored using a five-point Likert scale: occasionally, always, frequently, often, rarely, and does not apply. It covers the degree to which the internet affects daily routine, sleeping pattern, social life, productivity, and feeling. The instrument has exhibited psychometric properties in literature reviews. The reliability is 0.899 in Cronbach's alpha the higher the score the greater the internet addiction (10). Young suggests that 20 to 49 points are an average online user who has complete control over his/her usage; a score of 50–79 categorized as potential problematic internet users should consider their full impact on your life; and a score of 80–100 categorized as problematic internet users (PIU).

For more accuracy and to cover any losses due to incomplete questionnaire, we allocated 400 questionnaire sheets for

each faculty and after exclusion of incomplete or improperly filled ones we obtained 755 sheets valid for further analysis and interpretation (100% for medicine, 88.7% for education and overall response rate 94.4%).

Pilot study: Pilot study was conducted before the actual field work. It was carried out upon randomly selected 20 students in Benha faculty of medicine to test the applicability (time needed to answer the questions, arrangement of questions, vague words, etc.). The results of the data obtained from pilot study helped in modification of the questionnaire that was revised, redesigned and rewritten to make the final form of the questionnaire sheet.

Statistical analysis

The data were analyzed using statistical analysis (SPSS V. 21). Comparison was done by Chi-square or Fishers tests. Regression analysis to find out the independent predictors of YIAT. The statistical significant in this study was \leq 0.05. Results

755 surveyed students (400 from faculty of medicine and 355 from faculty of education), about (62.1%) within the age range 18 to 23 years old, female sex represented (72.6%), (52.8%) are urban residents, (53.1%) have excess family income than they need, the most common achieved grade was very good (43%).

Patterns of internet

The majority of the students whether from faculty of medicine or education reported "home" as the frequent place for internet (99.5% and 97.7%) respectively. The mobile phone is the commonly device in both groups was. Medical students were higher than students of faculty of education regarding internet use in years, 57.2% vs. 51.5% used internet for more than five years ($x^2=32.9$, p=.000) and daily internet use duration (41.5 % vs. 31% use internet for about 4 to 6 hours daily) ($x^2 = 14.6$, p = .006). Afternoon and evening times are the preferred times to use internet for students (79% and 74.9%), respectively. Using internet for entertainment was the most common purpose for usage and was significantly higher among medical students (60.8% vs. 42.5%) ($x^2=25$, p=.000), while using it for research was the least common purpose and still significantly higher among medical students (19% vs.6.5%) (x²=25.9, p=.000) (Table 1).

Table (1): Patterns of students' internet use.							
Pattern	Medicine	Education	Total	Х2			
Fallelli	(N=400)(%)	(N=355)(%)	(N=755)(%)	(<i>p</i>)			
Internet access place							
Home	398(99.5)	339(97.7)	737(98.7)	4.4(0.03)			
Friends' home	42(10.5)	18(5.1)	60(7.9)	7.6(0.006)			
Café	48(12.0)	20(5.6)	68(9)	9.3(0.002)			
Faculty	42(10.5)	23(6.5)	65(8.6)	3.9(0.049)			
Device (s) used for inter	rnet access						
Mobile	377(94.3)	337(94.7)	714(94.6)	0.17(0.7)			
Desktop	58(14.5)	20(5.6)	78(10.3)	16(<0.001)			
Laptop	145(36.3)	36(10.1)	181(24)	70(<0.001)			
Tablet	32(8.0)	16(4.5)	48(6.4)	3.9 (0.05)			
Internet use in years							

Sheref M. Eltaher et al / Does the Nature of the Study Affect Internet Use and Addiction? Comparative – Study in Benha
University, Egypt

0	0/0)			22.0
<2 years	8(2)	45(12.7)	53(7)	32.9
2-5 years	163(40.8)	127(35.8)	290(38.4)	(<.001)*
>5 years	229(57.2)	183(51.5)	412(54.6)	
Daily internet usage in he	ours			
1-3	113(28.3)	103(29.0)	216(28.6)	14.6
4-6	166(41.5)	110(31.0)	276(36.6)	(0.006)*
7-9	91(22.8)	93(26.2)	184(24.4)	
10-12	12(3.0)	25(7.0)	37(4.9)	
>12	18(4.5)	24(6.8)	42(5.6)	
Predominant time of inte	ernet use			
Morning	3(0.8)	7(2.0)	10(1.7)	FET=3.2 (0.19)
Afternoon & evening	316(79)	266(74.9)	582(76.7)	
Midnight &later	81(20.2)	82(23.1)	163(21.6)	
Students' activities on the	e internet			
Entertainment	(60.8)243	151(42.5)	394(52.2)	25 (0.001)
Social communication	(44.8)179	(42.2)150	329(43.6)	0.5 (0.5)
Study	(28.5)114	(8.2)29	143 (18.9)	50.6 (<0.001)
Research	(19)76	(6.5)23	99 (13.1)	25.9 (<0.001)

Patterns and effects of Facebook

About 38.5% of medical students reported that they often used Facebook at night while 46.2% of education students reported that they always access Facebook at night (*FET=21*, p=.000). Higher percentage of students of faculty of education considered Facebook as a source of inspiration and motivation (54.9% vs.49.2%) ($x^2=11.4$, p=.01). Medical students showed higher percentage of using Facebook in study hours/lectures (53% vs.44.2%) ($x^2=9.8$, p=.02). About (41%) of medical students found difficulty in spending whole day without Facebook and this was reported by more students from faculty of education (45.1%) ($x^2=6.4$, p=.04). There was no statistically significant between both groups

regarding students' opinion about the effect of Facebook on real life, nearly equal percentages from both groups mentioned that they are more active in real life (44% and 44.5%) followed by equal activity on both Facebook and real life (29.2% and 29.3%) ($x^2=3.1$, p=0.4). On asking students of both faculties about their causes of Facebook usage, we found that higher percentages of medical students using Facebook for fun & entertainment (80% vs. 71%) followed by spending leisure time (74% vs. 67.3%) and finally for studying (69.5% vs. 56.3%) and all these differences were of statistical significance ($x^2 = 8.3$, p=.004, $x^2=4.1$, p=.04, $x^2=14$, p<.001) respectively (Table 2).

Table (2): Patterns of students'							
Pattern	Medicine	Education	Total	X ²			
	(n=400)%	(n=355)%	(N=755)	(p)			
Use of Facebook At night							
Never	8(2)	4(1.1)	12(1.6)	FET=21			
Sometimes	111(27.8)	94(26.5)	205(27.2)	(<0.001)			
Often	154(38.5)	93(26.2)	247(32.7)				
Always	127(31.8)	164(46.2)	281(38.6)				
Facebook as a source of motiva	tion and inspira	ition					
Yes	45(11.2)	46(13.0)	91(12.1)	11.4			
No	112(28.0)	63(17.7)	175(23.2)	(0.01)			
Sometimes	197(49.2)	195(54.9)	392(51.9)				
On the contrary	46(11.5)	51(14.4)	97(12.8)				
Use of Facebook in study hours	s/lectures						
Yes	212(53.0)	157(44.2)	369(48.9)	9.8			
Often	75(18.8)	89(25.1)	164(21.7)	(0.02)			
Sometimes	103(25.8)	91(25.6)	194(25.7)				
No	10(2.5)	18(5.1)	28(3.7)				
Difficulty in spending whole da	ay without Facel	book					
Yes	163(40.8)	160(45.1)	323(42.8)	6.4			
No	123(30.8)	122(34.4)	245(32.5)	(0.04)			
Most of time	114(28.4)	73(20.6)	187(24.7)				
Activity on Facebook and real I	ife						
More active in real life	176(44.0)	158(44.5)	334(44.2)	3.1			
More active on Facebook	62(15.5)	65(18.3)	127(16.8)	(0.4)			

Sheref M. Eltaher et al / Does the Nature of the Study Affect Internet Use and Addiction? Comparative – Study in Benha University, Egypt

Equally active in both	117(29.2)	104(29.3)	221(29.3)	
Inactive on either one	45(11.2)	28(7.9)	73(9.7)	
Causes of Facebook by students	S			
Fun & Entertainment	320 (80)	252 (71)	572 (75.8)	8.3 (0.004)
Spend leisure time	296 (74)	239 (67.3)	535 (70.9)	4.1 (0.04)
Studying	278 (69.5)	200 (56.3)	478 (63.3)	14.03 (<0.001)
New friendship	80 (20)	54 (15.2)	134 (17.8)	2.9 (0.09)
Connection with friends and relatives	231 (57.8)	208 (58.6)	439 (58.2)	0.1 (0.8)

Effects of Facebook

Regarding effects of Facebook on physical & social life, there was statistically significant between students 57.7% of students of faculty of education felt lethargic *vs.* 49% of medical students ($x^2=12.3$, p=.002), got irritated when anyone disturbed them while using Facebook (49.3% *vs.* 39.2%)($x^2=7.7$, p=.02) and experienced change in appetite and meal size(students from faculty of education experienced decrease in appetite while medical students

showed increase in appetite and meal size) ($x^2=14.7$, p<.001). No significant difference could be noticed between both groups regarding body weight (p=0.5), social life (p=0.25), time spent with friends and family (p=0.1) and physical exercise (p=0.3). Regarding physical health hazards of Facebook use; Students from faculty of education experienced more health hazards than medical students due to internet and Facebook usage and all these differences were of statistical significance (Table 3).

Effects	Medicine	Education	Total	X ²
LIICOS	(n=400)%	(n=355)%	(N=755)	х (р)
Effect of Ecceleration and all lit	. ,	(11=333)70	(11-755)	(<i>p</i>)
Effect of Facebook on social lif	148(37)	149(42.0)	297(39.3)	FET=3.7
It is getting better	64(16.0)	60(16.9)	297(39.3) 124(16.4)	0.25
It is getting worse	188(47.0)	146(41.1)	334(44.2	0.23
	• •	140(41.1)	554(44.2	
Effect of Facebook on social re		104(20.2)	227(20.1)	0.32
No effect at all	123(30.8)	104(29.3)	227(30.1)	
Moderate effect	197(49.2)	182(51.3)	379(50.2)	(0.85)
Extreme effect	80(20.0)	69(19.4)	149(19.7)	
Time spend (family and friend		10/5 1)	0((2,4)	(1
Increased	8(2.0)	18(5.1)	26(3.4)	6.1
Slightly decrease	215(53.8)	175(49.3)	390(51.7)	(0.1)
Markedly decreased	80(20.0)	70(19.7)	150(19.9)	
The same	97(24.2)	92(25.9)	189(25)	
Difference in energy level	10(0.0)	00(0.0)		10.0
Feel more active	12(3.0)	29(8.2)	41(5.4)	12.3
Feel more lethargic	230(57.5)	174(49.0)	404(53.5)	(0.002)*
No change	158(39.5)	152(42.8)	310(41.1)	
Get irritated when anyone dist				
Yes, I want to use Facebook	70(17.5)	53(14.9)	123(16.3)	7.7
Yes, but only when	157(39.2)	175(49.3)	332(44)	(0.02)
No, I can do anything	173(43.2)	127(35.8)	300(39.7)	
Change in appetite & meals siz				
Increased	96(24.9)	55(15.5)	151(20.0)	14.7
Decreased	44(11)	67(18.9)	111(14.7)	(<0.001)
No change	260(65)	233(65.6)	493(65.3)	
Change in physical exercise				
Increased	14(3.5)	20(5.6)	34(4.5)	2.4
Decreased	196(49.0)	162(45.6)	358(47.4)	(0.3)
No change	190(47.5)	173(48.7)	363(48.1)	
Change in body weight				
Increased	102(25.5)	80(22.5)	182(24.1)	1.1
Decreased	47(11.8)	47(13.2)	94(12.5)	(0.5)
No change	251(61.3)	228(64.2)	479(63.4)	
physical health hazards of Face	ebook use.			
Holding urine & Defecation	17 (4.3)	49 (13.8)	66 (8.7)	21.5 (<0.001)

Sheref M. Eltaher et al / Does the Nature of the Study Affect Internet Use and Addiction? Comparative – Study in Benha University, Egypt

Postponing meals	30 (7.5)	38 (10.7)	86 (9.01)	2.4 (0.1)
Forgetting or skipping meals	10 (2.5)	28 (7.9)	38 (5.03)	11.4 (<0.001)
Disturbance of sleep pattern	80 (20)	85 (23.9)	165 (21.9)	1.7 (0.2)
Back pain	67 (16.8)	94 (26.5)	161 (21.3)	10.6 (0.001)
Shoulder pain	69 (17.3)	89 (25.1)	158 (20.9)	6.9 (0.008)
Wrist pain	57 (14.3)	98 (27.6)	155 (20.5)	20.6 (<0.001)
Headache	94 (23.5)	129 (36.3)	223 (29.5)	14.9 (<0.001)
Eye irritation	116 (29)	145 (40.8)	261 (33.6)	15.4 (<0.001)

On asking students about the most affected aspect of their life due to internet and Facebook, we found that the academic performance was the most affected and the higher percentage was among students of faculty of education (62.3% vs. 46.5%) (x^2 =18.8, p=.000), this was followed by social relationship, but on the contrary the higher percentages was among medical students (34% vs. 23.4%) (x^2 =10.3, p=.001) (Figure 1).

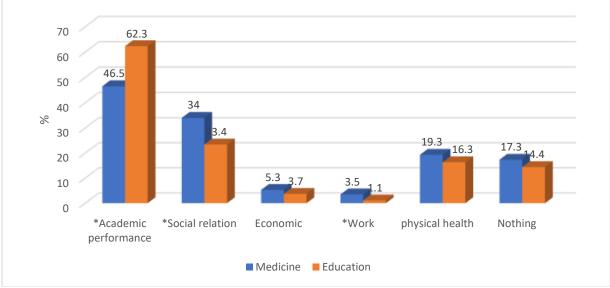
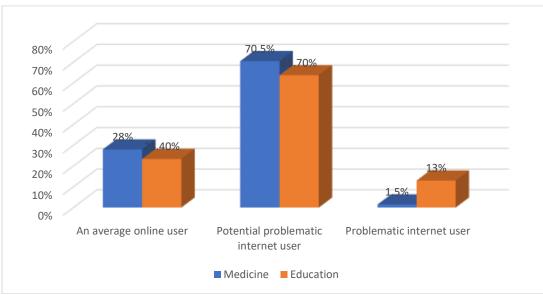


Figure (1): Students opinion about "what is the most affected aspect of their life?"

According to YIAT score classification, the majority of students are potential problematic internet users (70.5% for faculty of medicine vs.63.7% for faculty of education), but

actual problematic internet users were more among students of faculty of education (13% vs. 1.5 %) (x^2 =38.7, p=.000) (Figure 2).



X²= 38.7, p<0.001*

Figure (2): Comparison between student from both colleges regarding (YIAT) score

Regression analysis of socio-demographic factors like age, sex, residence &family income of students from both faculties showed that the family income and sex were significant predictors of YIAT score among the all students

(p=.01 and <.001), and also for medical students alone (p=.004 and.001). (Table 4).

Table (4):	Regression	analysis for	predictors of	of (YIAT) score
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	All students		Medic	Medicine		Education			
	В	95% CI	<i>p</i> -value	В	95% CI	<i>p</i> -value	В	95% CI	<i>p</i> -value
Age	95	-2.79 – 0.89	0.31	-1.68	-3.96 – 0.6	0.15	1.82	-1.21 – 4.86	0.24
Sex	4.58	2.17 – 6.99	0.00	4.42	1.94 – 6.9	.0010	1.74	-3.04 – 6.52	0.47
Residence	1.03	-1.15 – 3.2	0.35	.69	-1.74 – 3.1	0.58	2.18	-1.50 – 5.85	0.24
Family income	2.34	-4.17 - 0.51	.010	-3.00	-5.060.9	.0040	-1.31	-4.39 – 1.78	0.40

DISCUSSION

No doubt that the world lives the era of information technology with its huge revolution and its powerful influence on the public. Social network sites play an important role and can shape the political, social and cultural orientation. It deserves to be studied and on the basis of the aforementioned, we conducted this study to assess the magnitude of media usage and its social and health hazards among students as they represent a large and an important sector of internet users.

The great majority of university students from faculty of medicine and faculty of education reported that "home" is the most frequent place for internet access using their mobile phone and these findings were similar to another study conducted in Tanta University among Malaysian and Egyptian medical students (11).

It was clearly noticed that high number of students in both faculties utilized the internet for more 5 ys, Further, online social communication was adopted as an essential part of daily life, as evidenced by the increasing number of daily use hours. The average daily use was four to six hours, but medical students showed higher rate of use (41.5%) than those of faculty of education (31%).this came in concordance with chowdhury and Saha2015 who stated that (50%) respondents have their Facebook accounts more than 4 years, and (30%) respondents access their Facebook account regularly more than five hours daily(12).

obviously it was found that Afternoon and evening are the most preferred times to access internet as a general for most of students of both faculties (79% and 74.9%) but they often preferred to browse Facebook at night (38.5% & 26.2%). This is because about half of students considered Facebook as a source of inspiration &motivation, but still the higher percent among students of faculty of education (54.9% vs.49.2%). This is supported by a study about the use and impact of social networking in Egypt where students access Facebook more than 5 times per day especially at night when they access it alone(1).

The current study revealed that students using internet for entertainment as a first purpose, while using it for research is the last one. This came in agreement with Muduli 2014 who reported that college students spent 65% of total time on internet for the purpose of entertainment and 20% for studying (13). Using internet whether for entertainment or research purposes was significantly higher among medical students (60.8% *vs.* 42.5% &19% *vs.*6.5% respectively).

Regarding our findings about physical health hazards of internet and Facebook access, it agreement with Nazzal et al., 2018. Nazzal et al., 2018 found a positive relationship between time spent on the social network locations and Facebook Intensity Scales scores and an increase in unhealthy habits including skipping meals, delaying urination, and late-night and interrupted sleep. Negative health consequences related to excessive use included eye irritation, reduction in frequency and duration of exercise, reduction in energy levels, and back and wrist pain (14, 15). Internet addiction is a global health problem and epidemiological studies explained that the international prevalence rate of adolescent internet addiction is between 0.9% to 38% (16). Waldo 2014 mentioned that 24.7% of his study participants met the criteria for addiction (17). Our findings were lower than that of Waldo 2014, 13% of students of faculty of education and 1.5% of medical students were PIU according to YIAT score), but still in agreement with the international prevalence rate.

The academic performance was the most affected aspect and the higher percentage was among students of faculty of education (62.3% vs. 46.5%) who also showed higher percentage of potential problematic internet users& PIUs in comparison to medical students. These findings are similar to that of another study conducted on students of Asia Pacific University. That study found a negative relationship between students' academic performance and using social network sites such as Facebook. They concluded that Facebook is not the only factor that affects students' academic performance due to the relationship was low (16). Regression analysis for discovering predictors of internet addiction among university students revealed that family income and sex are significant ones. Our finding may differ from shek and Yu who stated that age, family economic status, gender, and immigration status were not significant predictors for addiction (18). The reasonable interpretation is that high social class and family income are accompanied with availability and accessibility of internet services. Females has level of internet addiction higher than males. Females use the internet as a social mean or as a ground for interpersonal relations and they prefer anonymous communications. Our finding may differ from many other studies that indicate that males are more prone to internet

addiction. Males and females exhibit different behavioral patterns and motivations for the internet. Males were likely to use the Internet for pleasure and less likely to surf the Internet to search for information, compared with females. Although both males and females were prone to surfing the Internet alone, males were more likely to go online with friends compared with females (19).

CONCLUSION

Facebook and internet have multiple drawbacks on physical, social, mental and academic life of university students. Medical students used internet for longer period and more hours of daily use but showed less physical health hazards in comparison to students from faculty of education. PIUs were more among faculty of education students. There is statistical significant (negative) association between academic performance and degree of addiction. Family income & sex are significant predictors of internet addiction.

RECOMMENDATIONS

Health education of university students to moderate their use of internet & social media to avoid addiction and create a balance between their real and virtual lives.

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Ethical and administrative consideration

An official approval from the Research Ethics Committee was obtained in Benha faculty of medicine (pr 2-4-2019) and Vice dean for students and education affairs of both faculties before conduction of this work. Also we obtained a written consent from all the students.

REFERENCES

- 1. El-khouly MM. Study on the use and impact of online social networking in Egypt. J Emerg Technol Web Intell. 2015;7(1):5–8.
- 2. Christakis DA. Internet addiction: A 21st century epidemic? BMC Med. 2010;8(1):61.
- Egypt: number of internet users [Internet]. Available from: https://www.statista.com/statistics/462957/internet-

nttps://www.statista.com/statistics/46295//internetusers-egypt/

- 4. Farooqi H, Patel H, Aslam HM, Ansari IQ, Khan M, Iqbal N, et al. Effect of Facebook on the life of medical university students. Int Arch Med. 2013;6(1):40.
- 5. Perrin A. Social Media Usage: 2005-2015 | Pew Research Center [Internet]. Pew Internet & American Life Project2. 2015. Available from: https://www.pewresearch.org/internet/2015/10/08/so cial-networking-usage-2005-2015/
- 6. Wood J. College students in study spend 8 to 10 hours daily on cell phone. Psych Cent. 2015;2–4.
- 7. Burnay J, Billieux J, Blairy S, Larøi F. Which

psychological factors influence internet addiction? Evidence through an integrative model. Comput Human Behav. 2015;43:28–34.

- Block JJ. Issues for DSM-V: Internet addiction. Am J Psychiatry. 2008;165(3):306–7.
- Rani PL, Mettilda Buvaneswari G. Social networking addiction among adolescents. Res Humanit Soc Sci. 2017;7(17):214–8.
- Young KS. Internet addiction: the emergence of a new clinical disorder. Cyberpsychology Behav. 1998;1(3):237–44.
- Saied S, Elsabagh H, El-Afandy A. Internet and facebook addiction among Egyptian and Malaysian medical students: a comparative study, Tanta University, Egypt. Int J Community Med Public Heal. 2016;1288–97.
- 12. Roy chowdhury I, Saha B. Impact of Facebook as a Social Networking Site (SNS) on youth generations: a case study of Kolkata city. Int J Humanit Soc Sci Invent. 2015;4(6):28–42.
- Muduli JR. Addiction to technological gadgets and its impact on health and lifestyle: a study on college students. Dep Humanit Soc Sci Natl Inst Technol Rourkela - India. 2013;(412):46.
- 14. Nazzal Z, Rabee' H, Ba'ara M, Berte D. Excessive Facebook use and physical and mental health risks in the occupied Palestinian territory: a cross-sectional study. Lancet. 2018;391:S38.
- Xu J, Shen L xiao, Yan C huai, Hu H, Yang F, Wang L, et al. Personal characteristics related to the risk of adolescent internet addiction: a survey in Shanghai, China. BMC Public Health. 2012;12:1106.
- Abdulahi A, Jalil B, Lumpur K, Samadi MB, Gharleghi B. A study on the negative effects of social networking sites such as Facebook among asia pacific university scholars in Malaysia. Int J Bus Soc Sci. 2014;5(10).
- 17. Waldo AD. Correlates of Internet Addiction among adolescents. Psychology. 2014;05(18):1999–2008.
- Shek DTL, Yu L. Internet addiction phenomenon in early adolescents in Hong Kong. Sci World J. 2012;2012:104304.
- Liang L, Zhou D, Yuan C, Shao A, Bian Y. Gender differences in the relationship between internet addiction and depression: a cross-lagged study in Chinese adolescents. Comput Human Behav. 2016;63:463–70.
- 20. Weil, B., MacEneaney, O., Stauffer, B., Desouza, C. Habitual short sleep duration and circulating endothelial progenitor cells (2011) Journal of Cardiovascular Disease Research, 2 (2), pp. 110-114. DOI: 10.4103/0975-3583.83039