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Assessment the nomophobia among medical students in Tikrit University College of Medicine

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ABSTRACT:

Background Nomophobia (no- mobile- phobia) by definition is the fear of being without mobile phone contact. If a person is in an area of no network, has run out of balance or even worse run out of battery. Nomophobia symptoms include physical side effects as panic attack, shortness of breath, dizziness, trembling, sweating, increased heart rate, chest pain and nausea. In recent times the cell phone transformed from a status symbol to a necessity as a result of the countless uses, a mobile phone provides personal diary, email dispatcher, and music player, camera, game player, calculator, video, and other programs.

Aim: The goal of this study is to assess the nomophobia characteristics of students in Tikrit medical college.

Patients and method: A cross sectional study was conducted in Tikrit University College of Medicine from the 1st of January 2016 to the 1st of April 2016. The study included 180 students (86 were males and 94 were females) from Tikrit medical college. Samples were selected by simple random sampling from first to sixth grade. The data was collected by using a questionnaire which was administered by the students themselves after taking Permission from them.

Results: results shows that 79 (84%) of females and 70 (81.4%) of males check their phones always. 70.9% of males and 70.2% of females use their phones for contact with family, 59.3% of males and 52.1% of females for social network, and 52.3% of males use their phones for medical apps while only 35.1% of females use it for this purpose. 50 (58.1%) of males and 68 (72.3%) of females keep their phone at head while sleeping. 46 (53.5%) of males don't keep their phones silent while sleeping, while only 35 (37.3%) of females do the same.

Conclusion: The symptoms of nomophobia is highly frequent among medical students, about 58% among males and 79% among females.

Recommendations: The study recommend to achieve more studies on the signs, symptoms, and side effect of nomophobia. Develop more programs and articles for young people on the correct use of smart phones and the disadvantages of wrong use of these devices.

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Introduction:

Persons with nomophobia complained commonly from severe anxiety and panic when they had no mobile, scientists hypothesis regarding nomophobia referred to a new psychopathology [1]. A recent study done in Korea by Kung shows that 66% of persons who used mobile phone had nomophobia[2]. According to a survey done in U.K referred that smartphone used mainly for internet browsing while making a phone call is the fifth reported use for smartphones [1].

The development in the technology lead to replacement of classical mobile phones by smartphones [3]. Smartphone characteristics are internet connection and include internet browsing, social networking services, GPS map services, and TV and radio services. Internet phone calls and internet text messaging are replacing traditional phone calls and messaging services [3]. The development of wireless broadband technologies such as 3G/4G and WiFi, smartphone users have moved from internet banking to mobile banking [4] . Multifunctions of smartphones are encourage greater dependency on it [5]. This dependency is called mobile internet addiction, previously common technology addiction is TV addiction. Both internet and TV addiction are characterized by compulsive behaviors, which is consider as a comorbidity like other types of addiction disorders types such as gambling and pornography[5].

A recent studies referred to a high percentage of peoples were afflicted with “nomophobia” or “no mobile-phone phobia”. Many people complain from panic attack when they are without their mobiles. Panic disorder is an anxiety disorder characterized by recurrent unexpected panic attacks. Panic attacks mean sudden periods of intense fear that may include palpitations, sweating, shaking, shortness of breath, numbness, or a feeling that something really bad is going to happen[6].

Many persons look for their phones in the morning, or in their schools or jobs[7].

The increased new technological devices and virtual communication involving personal computers and tablets uses are leading to changes in individuals daily habits and behaviors[8], creating personal languages and jargon[9], and establishing a virtual arena Rheingold[10], and "space of flows" by Castells[11]. Mobiles can have many benefits and positive aspects because they facilitate exchange of information and communication, they enable people to overcome barriers like spatial proximity and immobility, to go beyond the conventional geographical boundaries[12,13].

Aim : Assess the epidemiological chararacteristics of Tikrit medical students with nomophobia.

Objectives:

1- Clarify the frequency, difference between male and female, symptoms of nomophobia among Tikrit medical students.
2- Recognize the relation of nomophobia and the school performance, and lifestyle of medical students in TUCOM.
3- Appraise the opinion of medical students in regard to the advantages and disadvantages of direct access to social network.

Subjects and methods: The current study is cross-sectional epidemiological, and is conducted from 1st January 2016-the 1st of April 2016. This study was performed among medical students in Tikrit university aged between 19-25 years old, including 1st, 2nd, 3rd, 4th, 5th and 6th stages. Simple random sampling used and included 180 students, 94 were females and 86 were males. The questionnaire used for data collection was designed in English language. It included demographic characteristics of the students, followed by items related to nomophobia. It is administered by the students themselves and included mainly closed questions with only two opened questions, all data management and analyses was done by manual statistical methods. Data have been represented by a suitable tables and figures.

Results:

From the total 180 students, 94 (52.22%) of them were females while males were 86 (47.78%) as shown in figure (1). In figure (2) shows that 65.2% (56) of males live in dormitory and the remainder 34.8% (30) live with their family, while 58.6% (55) of females live with family and the remainder 41.4% (39) live in dormitory.

Table (1) shows that 52.77% of the medical students (50% of males and 55.3% of females) keep their phones always by their sites.

From the total of 180 0f medical students, 45 (25%) would have panic attack when they lose their phones, while 63 (35%) would have nothing as shown in table (2). From total students there were 59.5% of females worry about their phone despite being in a secure place, while 41.8% of males worry about their phone despite being in a secure place as shown in figure (3).

Figure (4) shows that 79 (84%) of females and 70 (81.4%) of males check their phones always. also table (3) represents that 70.9% of males and 70.2% of females use their phones for contact with family, 59.3% of males and 52.1% of females for social network, and 52.3% of males use their phones for medical apps while only 35.1% of females use it for this purpose.

In current study, finds that 64% of males and 66% of females have only one smart phone, while only 5.8% of males and 2.1% of females have three smart phones.

The results show that 50 (58.1%) of males and 68 (72.3%) of females keep their phone at head while sleeping (figure 6), while 79% of males and 84% of females check their phone immediately after waking up (table 4).

The study finds that 54 (57.5%) of females leave everything and charge their phone when the phone is run out, in comparison to males 41 (47.6%) as (figure 7), while figure (8) shows that 32 (37.2%) of males and 43 (45.8%) of females ask about Wi-Fi when they visit a new place.

Table (5) shows that 46 (53.5%) of males don't keep their phones silent while sleeping, while only 35 (37.3%) of females do the same.

Figure (9) shows that only 14 (16.3%) of males and 19 (20.2%) of females keep most of their money for phone balance. The results show that 28 (32.5%) of males and 30 (31.9%) of females change their phone devices once yearly, 49 (57%) of males and 54 (57.5%) of females don't change their phone yearly and only 2 (2.3%) of males and 6 (6.4%) of females change their phone devices thrice yearly as in figure 10.

There were (29.1%) of males and 25 (26.6%) of females use their phones for 4-6 hours daily, 9 (10.5%) of males and 9 (9.6%) of females use it for 6-8 hours, and 10 (11.6%) of males and 17 (18%) of females use it for 8-10 hours as in table 6.

In figure (11), that only 4.7% of males and 7.5% of females answer their phone at lecture While figure (12) shows that 51 (54.2%) of females and 46 (53.4%) of males keep their phone devices on while having exams.

Figure (13) shows that 63 (74.4%) of males and 71 (75.5%) of females keep their priority to the study. In addition to that figure (14) shows that 131 (72.77%) of medical students use the social network for contact with their families, 69(38.33%) use it to increase their knowledge, 69(38.33%) use it for learning purposes, 51(28.33%) use network for interest, and only15(8.33%) think there is no advantage of using social network. This figure show that 121(67.22%) of Tikrit University medical students think that social network waste their time, 31(17.22%) think it reduce social activity in real life, others 60(33.33%) say it affect vision and general health, some 21(11.66%) think it affect study,13(7.22%) think it cause addiction, and 28(15.55%) say it has no disadvantage.

Discussion

Nomophobia is a new problem appeared nowadays with appearance of smart phones and popular use of them. This study was conducted among medical students in Tikrit University College of Medicine, from the total 180 students, 94 (52.22%) of them were females while males were 86 (47.78%).

From the total also, 65.2% of males live in dormitory and the remainder

34.8% live with their family, while 52.6% of females live with family and the remainder 47.4% live in dormitory. The residence is important in this study, it may affect the need for mobile phone for contact with family for those who live in the dormitory, and contact with friends for those who live with their families and less availability of facilities for those who live in the dormitory that make them in more need for mobile phone.

The table (1) shows that 52.77% of the medical students (50% of males and 55.3% of females) keep their phones always by their sides, and this is one of the characteristics of nomophobia, as shown in a study on nomophobia-mobile phone dependence, among students of a medical college in Bangalore that 49% of students always keep their phones by their sides to check them frequently in a range of two-three times per hour[14].

From the total of 180 0f medical students, 45 (25%) would have panic attack when they lose their phones, 41 (22.8%) would have palpitation and 16 (8.9%) would have sweating, while 63 (35%) would have nothing when they lose their mobile phone. In comparison to a study of rising concern of nomophobia amongst Indian medical students, which had shown that 83% of students experienced panic attack when their mobile phone was misplaced, and 21% had anxiety[15].

Among medical students who included in this study, 59.5% of females and 41.8% of males worry about their phone despite being in a secure place, as they always need to check their phones for messages, calls and emails and this reflects the excessive dependency on mobile phone. According to the Pew Research Center, 81% of smartphone users keeping their phones near them during waking hours, which is a symptom of nomophobia[16]. As shown in results that (57.5%) of females leave everything and charge their phones when the phone is run out, in comparison to males (47.6%) ,this show that females are more obsessive about their phones.

In a study on nomophobia-mobile phone dependence, among students of a

medical college in Bangalore, about 23% of students had stress because of feeling that they lose their concentration, when they don't have their mobile nearby or their mobile has run out of balance or battery[14].

The study found that 70.9% of males and 70.2% of females use their phones for contact with family as they live in the dormitory away from their homes, 59.3% of males and 52.1% of females for social network which has excessively increase in the last years as there is a wide variety of social network applications especially facebook and whatsapp, 52.3% of males use their phones for medical apps while only 35.1% of females use it for this purpose, and also the males use gaming apps more than females but this doesn't necessarily mean that males are more nomophobic than females.

More than half of the students own only one smartphone, but we can't ignore that 31.9% of females and 30.2% of males own two smart phones, which means that more time is spent using these devices this result in more addiction. This is similar to results of Indian study that showed, 34% were having two mobile phones, while 4% had more than two mobiles(15).

The results show that 50 (58.1%) of males and 68 (72.3%) of females keep their phone at head while sleeping, these means severe fear of losing the phone, in addition to that, 79% of males and 84% of females check their phone immediately after waking up, and this may guide us that females are more nomophobic than males.

Figure (8) shows that 32(37.2%) of males and 43 (45.8%) of females ask about Wi-Fi when they visit a new place. It's clear that there is no big difference between male and female about the emergent need to connect to network wherever they are.

From the table (5), 40 (46.5%) of the male medical students make their phones silent while sleeping, and 46 (53.5%) don’t make it silent while sleeping. In comparison to 59 (62.7%) of females make phone silent while sleeping, and 35(37.3%) of females don’t make it silent. But remains a high percentage of those who keep their

phones on while sleeping which is another characteristic of nomophobia.

The results found, only 14(16.3%) of males and 19 (20.2%) of females keep most of their money for phone balance, which give us somewhat a way of reducing the effect of nomophobia. Regarding the times of changing the phone device in one year, about 30% of females, 28% of males subsequently change their device once per year, although in most times there is nothing wrong about the old device but only the need to won the most advanced device.

In table (6) we saw that 50(27.78%) of both male and female use their phones 4-6hr per day which is somewhat equal to the time needed for sleep, for hard work and any essential activity in life, it is consuming time.

High percentage of students (74.4%)of males and (75.5%) of females keep priority to study which is one of the characteristics of nomophobia. The figure (11) shows that (54.2%) of females and (53.4%) of males keep their phone device on while having exams, others keep it off. This means medical students are unable to limit the use of smart phones and focus on their academic requirements.

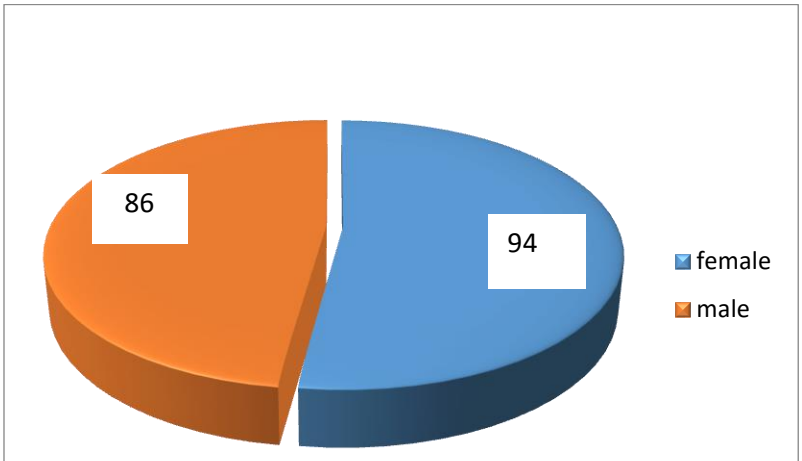

Figure (1) gender of the students

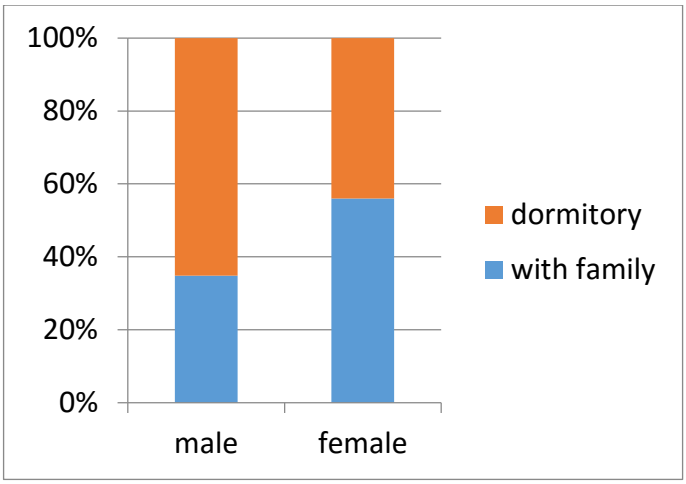

Figure (2): Relation between living place and nomophobia.

Table (1): The relation between nomophobia and frequency of mobile checking according to gender.

Gender	Always	usually	sometimes	rarely	total
Male	43 (50%)	28 (32.55%)	15 (17.45%)	0 (0%)	86 (47.8%)
Female	52 (55.3%)	23 (24.5%)	17 (18.08%)	2 (2.12%)	94 (52.2%)
total	95 (52.77%)	51 (28.33%)	32 (17.77%)	2 (1.13%)	180 (100%)

Table (2): Symptoms related to nomophobia.

Symptoms	male		female		total	
	Number	%	Number	%	Number	%
Panic attack	12	26.7	33	73.3	45	25
Shortness of breath	6	42.9	8	57.1	14	7.78
Dizziness	10	76.9	3	23.1	13	7.22
Trembling	3	50	3	50	6	3.33
Sweating	8	50	8	50	16	8.89
Chest pain	3	50	3	50	6	3.33
Palpitation	11	26.8	30	73.2	41	22.78
Nausea	1	25	3	75	4	2.22
All the above symptoms	42	66.7	21	33.3	63	35

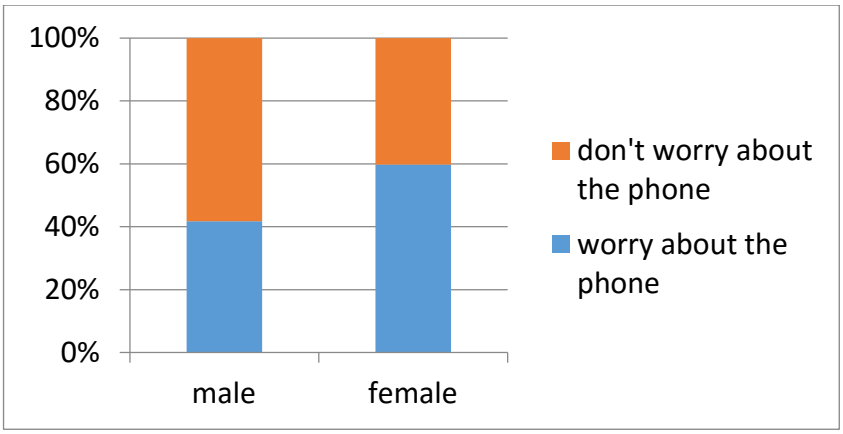

Figure (3): the relation between nomophobia and daily lifestyle.

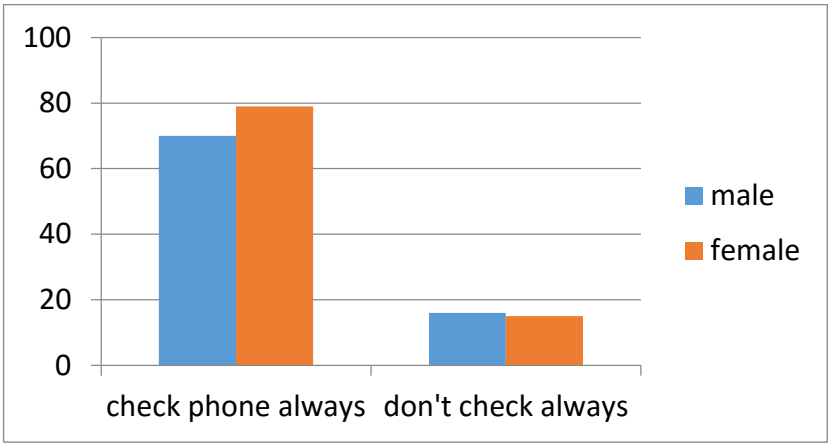

Figure (4): the relation between nomophobia and phone checking.

Table (3): the purpose of using phone

Gender	Contact with family	Social network	Gaming apps	Medical apps	Hobbies apps	Fitness apps
Male	61 (70.9%)	51 (59.3%)	18 (20.9%)	45 (52.3%)	14 (16.3%)	5 (5.8%)
Female	66 (70.2%)	49 (52.1%)	5 (5.3%)	33 (35.1%)	9 (9.5%)	4 (4.25%)
total	127 (70.5%)	100 (55.5%)	23 (12.7%)	78 (43.33%)	23 (12.7%)	9 (5%)

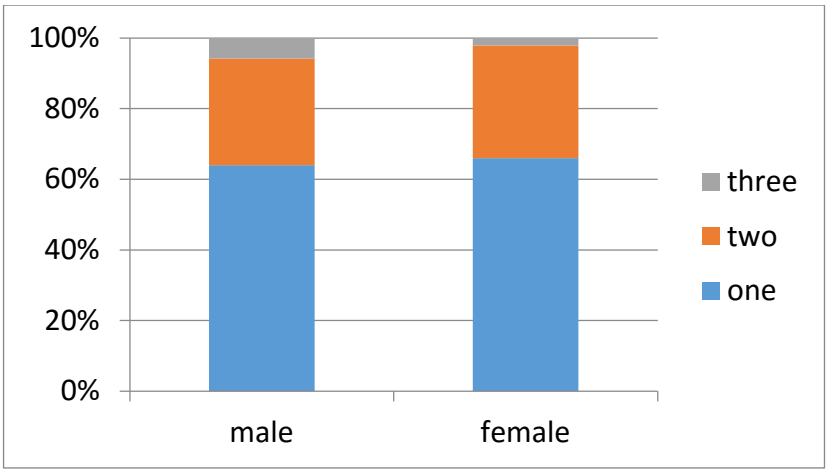

Figure (5): The number of smartphones used by students.

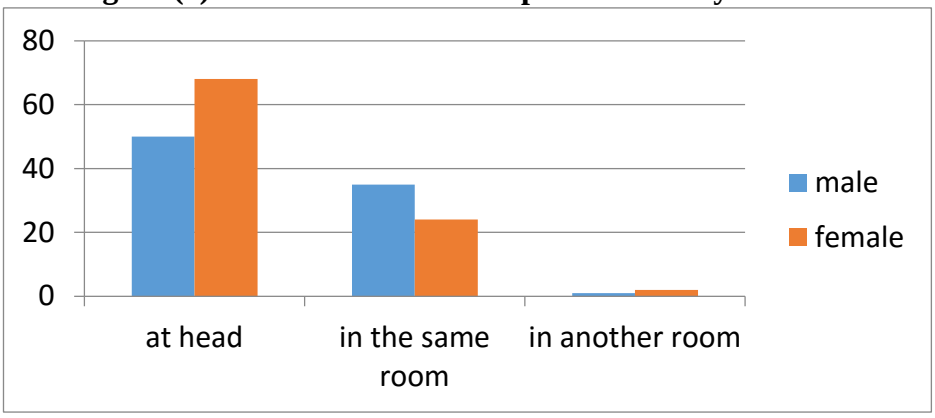

Figure (6): the relation between nomophobia and phone using after waking

Table (4): the relation between nomophobia and sleeping.

Gender	Check phone immediately after waking up	Doesn't check phone immediately after waking up	Total
Male	68 (79%)	18 (21%)	86 (47.8%)
Female	79 (84%)	15 (16%)	94 (52.2%)
Total	147 (81.6%)	33 (18.4%)	180 (100%)

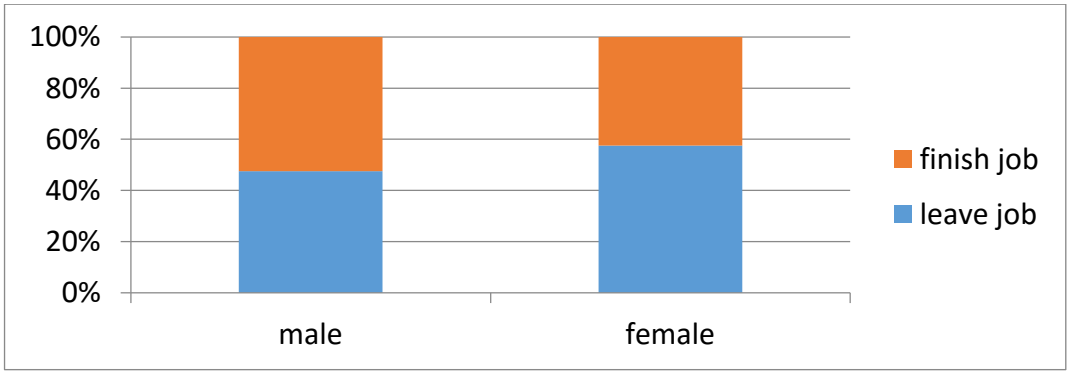

Figure (7): the relation between nomophobia and phone charging.

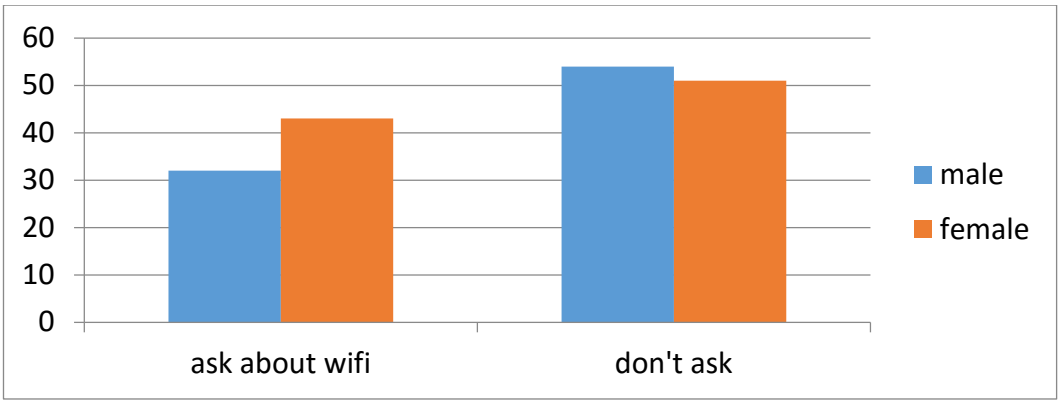

Figure (8): the relation between nomophobia and phone silence during sleeping.

Table (5): the relation between nomophobia and sleeping.

Gender	Make phone silent while sleeping	Don't make phone silent while sleeping	Total
Male	40 (46.5%)	46 (53.5%)	86 (47.8%)
Female	59 (62.7%)	35 (37.3%)	94 (52.2%)
total	99 (55%)	81 (45%)	180 (100%)

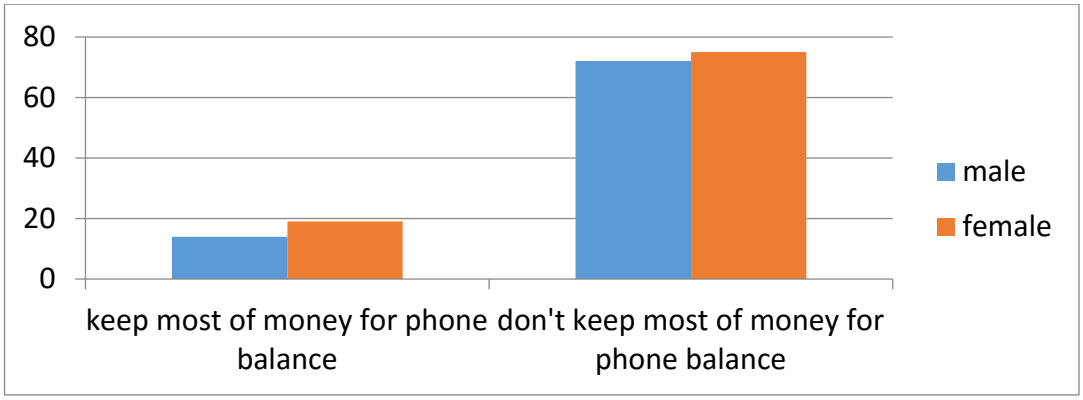

Figure (9): the relation between nomophobia and phone balance.

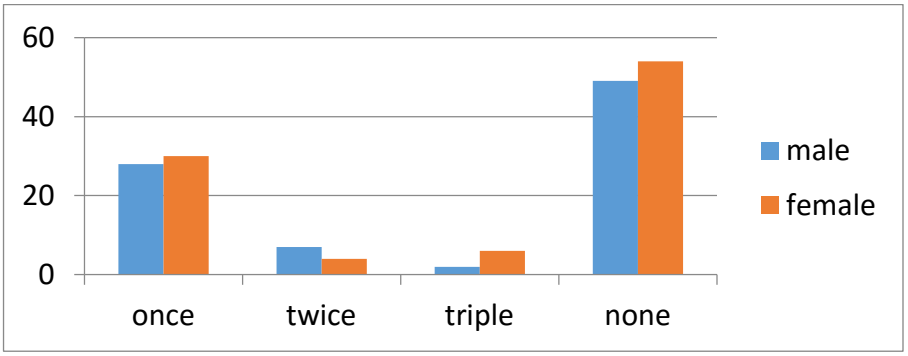

Figure (10): the relation between nomophobia and phone devices.

Table (6): the relation between nomophobia and numbers of hours with phone

Gender	numbers of hours					total
	0-2 hr	2-4 hr	4-6 hr	6-8 hr	8-10 hr	
Male	19 (22.1%)	23 (26.7%)	25 (29.1%)	9 (10.5%)	10 (11.6%)	86 (100%)
Female	23 (24.5%)	20 (21.3%)	25 (26.6%)	9 (9.6%)	17 (18%)	94 (100%)
total	42 (23.3%)	43 (23.8%)	50 (27.78%)	18 (10%)	27 (15%)	180 (100%)

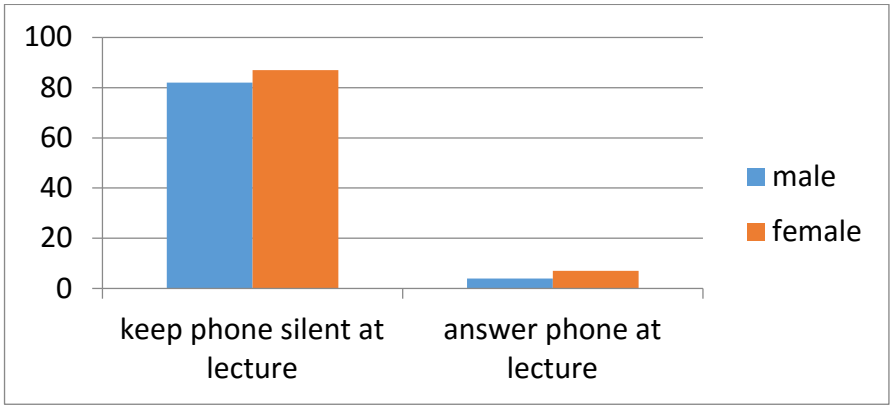

Figure (11): the relation between nomophobia and school performance.

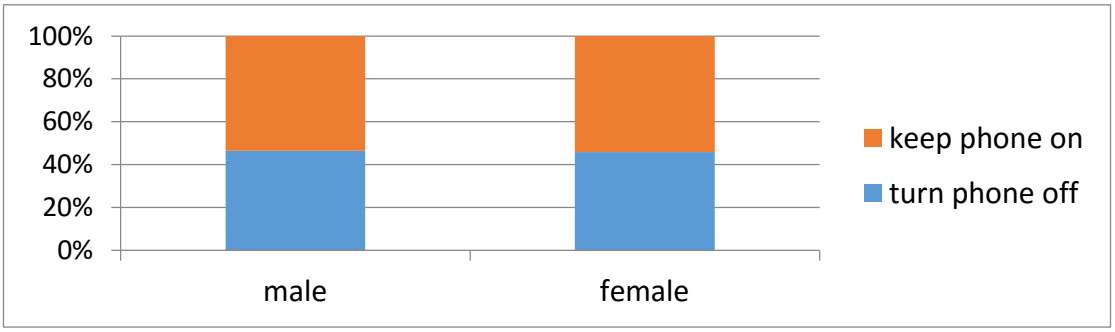

Figure (12): the relation between nomophobia and mobile status at school.

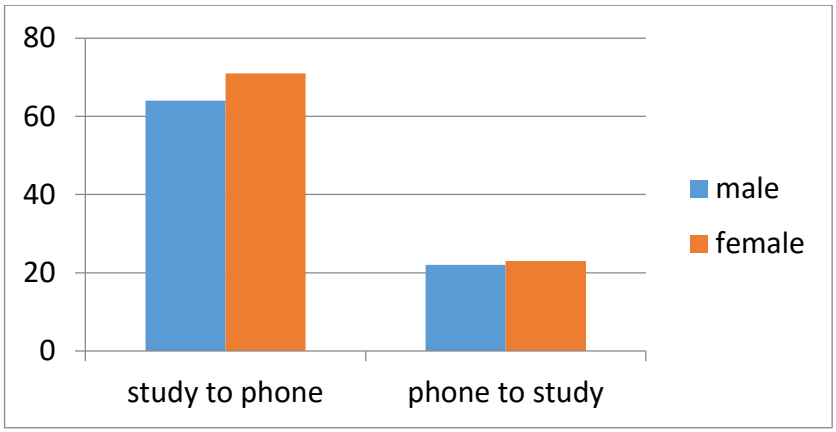

Figure (13): the relation between nomophobia and mobile uses for study.

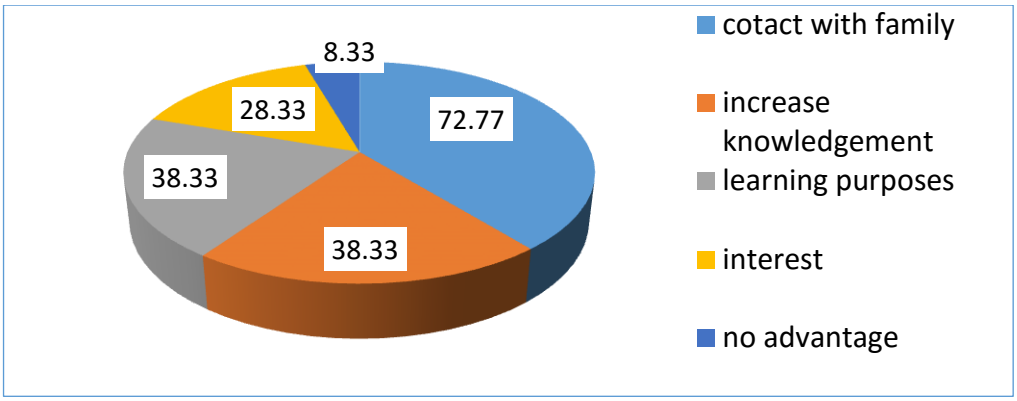

Figure (14): Advantages of social networking according to students opinions.

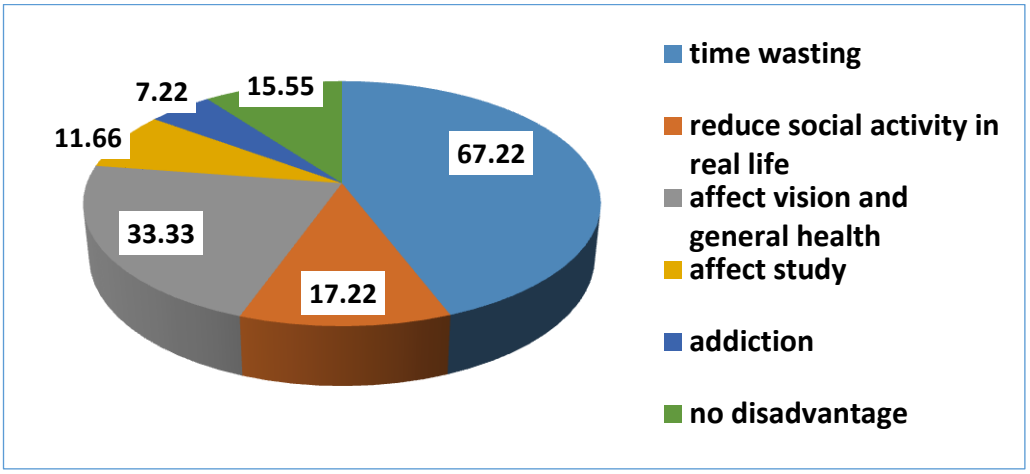

Figure (15): Disadvantages of social networking.

Conclusions

The study is concluded the followings:

1- The symptoms of nomophobia is highly frequent among medical students, about 58% among males and 79% among females.

2- There is a relation between mobile phone use and sleep pattern of medical students, about 50 (58.1%) of males and 68 (72.3%) of females keep their phone at head while sleeping.

3- There is a relationship between mobile phone use and school performance of medical students, about 51 (54.2%) of females and 46 (53.4%) of males keep their phone devices on while having exams.

4- In the opinion of medical students, direct access to social networking has both advantages and disadvantages, about 131 (72.77%) of medical students use the social network for contact with their families. While 121(67.22%) of Tikrit University medical students think that social network waste their time, 31(17.22%) think it reduce social activity in real life. Although medical students are aware of the advantages and disadvantages of social networking, most of them still use it in the wrong way which may seem as addiction.

Recommendations

From the findings and information we collected in the study, we recommend the following:

1- A more detailed population based study on the signs and symptoms of nomophobia.

2- A new programs and articles for young people on the correct use of smart phones and the disadvantages of wrong use of these devices.

3- Developing new methods for dealing with nomophobic students or people to have regular normal use of smart phones, and treat them.

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