

Lifestyle of Medical students at Qassim University

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ABSTRACT

Background: Healthy lifestyle is an important element for success, especially for Medical students. It includes lots of items such as physical activity, diet, and sleep which we believe that these three items are the major for a healthy lifestyle. The aim of this study is to evaluate healthy and non-healthy behaviors including physical activity, diet and time devoted to sleep, leisure, stress, and smoking of medical students in Qassim region. **Methodology:** A cross-sectional study was targeted medical students at Qassim region in different cities (Buraydah and Unizah). A self-administered questionnaire was used. It included a domain for physical activity, time devoted for sleep, leisure, and smoking. **Results:** Around 714 medical students participated in this study, 467 (55.3%) males and 247 (44.7%) females. Regarding physical activity, it was found that one-third of the students exercise 1-3 times per week. Regarding diet, 31% of students were always eating their breakfast. But, 81.8% were consuming fast food 1 to 6 times weekly. Furthermore, half of the students devoted 4-6 hours only for sleep during school days and during the weekend they sleep 7-9 hours. Time spent on a cell phone, computer, and surfing Internet (for leisure) was more than 4 hours for 32.5% during the week and it increases at the weekend to 51.9%. **Conclusions:** Lifestyle of the majority of the students were: did not sleep enough, did not exercise, consumed fast food, and spent much time in usage of a cellphone, which are common habits among medical students of both genders. These habits had a significant impact on their overall satisfaction of life and may affect their academic performance and general health.

INTRODUCTION

Lifestyle is one of many elements of success, especially for medical students. The concept of lifestyle is "someone's way of living; the things that a person or a particular group of people usually do" ⁽¹⁾. A lot of items play an important role in deciding whether the lifestyle is healthy or non-healthy. Physical activity, diet and time devoted to sleep are the three major ones which the research is focusing on. In college, generally speaking, students experience big changes in different aspects of their lives, starting with being responsible for driving their own way to progress step by step towards having a good job and eventually a great career. On the other hand, maintaining a trustful base of relationships which will lead to increase the level of social activities, and in the same time keeping an eye for their financial situation balancing a low income usually with an expensive HEALTHY lifestyle needs, these changes can be stressful if time management and self-discipline falls down and usually lots of disorders start to affect lifestyle as a result, varying from bad eating habits to drug addiction which will lead to low academic performance.

Lifestyle among medical students could be affected by stress, as well as, stress could affect

students' academic achievement. Habits in any group of people will result positively, which are the healthy habits, or negatively, leading to lifestyle disorders ⁽³⁾. Medically, sedentary lifestyle that can be associated with the increased prevalence of dyslipidemia, obesity, and cardiovascular diseases ⁽⁴⁾. Well-being lifestyle results in good health in the long term ⁽⁵⁾. A cross-sectional study was done on male and female medical students at the college of the medicine University of Dammam during the academic years: 1st, 3rd, and 6th year, 562 students have been participated, during the first semester of the academic year 2012-2013⁽³⁾. 714 students participated in this study. Another study involved 604 students from different 4 universities in Wroclaw, Poland ⁽⁶⁾. There were different parameters to be measured among students: physical activity, sleeping, leisure, diet, smoking, alcohol consumption, and drug using ⁽³⁻⁶⁾.

Physical activity means: it is "the performance of physical exertion for improvement of health or correction of physical deformity". Diet defined as "the customary allowance of food and drink taken by any person from day to day, particularly one especially planned to meet specific requirements of the individual, and including or

excluding certain items of food" ⁽²⁾. Sleep, which is "a period of rest for the body and mind, during which volition and consciousness are in partial or complete abeyance and the bodily functions partially suspended", also it has been described as "behavioral terms as state marked by a characteristic immobile posture and diminished but readily reversible sensitivity to external stimuli" ⁽²⁾.

In the questionnaire, alcohol consumption was not one of the parameters, because it is not a habit between Saudis, as well as, it is banned in Saudi Arabia. Among Wrocław 4 universities' students, 91.2% of the students consume alcohol, mostly occasionally, when almost all the students of Qassim Region do not even experience it. That makes a clear difference between the students of Qassim Region and Wrocław, Poland ⁽⁶⁾. A study done on medical students of Dammam University indicated that the students not regularly exercise, 65% of the male students and 80% of the female students ⁽³⁾. Another study showed that the students exercise averagely ⁽⁶⁾.

In a study, 48.7% of the students sleep 5-7 hours a day ⁽⁶⁾. 91.3% of Dammam University medical students eating fast food ⁽³⁾. For smoking, 11.1% of the students, smoke regularly in Wrocław, Poland, also, the study did not specify the smoking of tobacco ⁽⁶⁾.

The aim of the study was to evaluate the healthy and non-healthy behaviors including physical activity, diet and time devoted to sleeping by medical students at Qassim region.

METHODOLOGY

Study type and setting

A cross-sectional study was performed by a self-administered questionnaire which was carried out among medical students in Qassim region, Kingdom of Saudi Arabia.

Qassim region is one of the main 13 provinces which located in the middle of Saudi Arabia and it has 2 colleges of Medicine, all of them belong to Qassim University, one is located in the main campus and the other located in Unaizah City (40 KM away from the campus). Around 714 medical students participated in this study, 467 (55.3%) males and 247 (44.7%) females. The questionnaire included domain for physical activity, time devoted for sleep, leisure, and smoking. ATLS was used as a tool in the questionnaire.

The questionnaire was validated through a pilot testing prior to administration.

For the accuracy of the answered questionnaires, there was a question asked to select option "C" to guaranty that the participant was reading the whole questionnaire before answering, 98.6% of the students selected the right option.

In the comparison between male and female students, the result of the comparison is significant level once P-value < 0.05.

Study population

Male and female medical students in Qassim region.

(Qassim college of medicine & Unaizah College of Medicine)

All medical students an eligible to share in the study.

Sampling & Sample size

From every education year, a class of males and a class of females have been selected and all the students had invited to participate. Around 714 medical students participated in this study, 467 (55.3%) males and 247 (44.7%) females

$$n = \frac{Z_{\alpha}^2 p (1 - p)}{d^2}$$

- ▶ n = Sample size
- ▶ Z_{α} = acceptable confidence level, Z value (e.g. 1.96 for 95% confidence level- 1.64 for 90%)
- ▶ P = anticipated population prevalence (%)
- ▶ d = absolute precision, (confidence interval).
Calculated sample size = 270 students.

Statistical processing and Analysis

All values have been analyzed using software statistical Package of Social Science (SPSS 20 for windows- Evaluation version).

Ethical Considerations

The aims of the research have been explained to the participants.

Participants have been assured that their responses to the questionnaires will be anonymous and confidential.

Participation was voluntary without any obligation. Verbal and written consent was obtained.

RESULTS

- 1- The age of the students was divided into three groups of age, 61.8% (19-22 years old) were the major, 37% (23-25 years old) and 1.3% were above 25 years old.

Most of the students walking 1-3 times per week 2- (44.7%) while(36.4%) of them are not walking at all. 12.2% of the students are walking 4-5 times, and 5.3% are walking 6-7 times. Only 1.4% walked more than 7 times, which they are considered as prominent level of walking. Female students significantly walk more (65.9%) than male students (61.8%).

The time spent on walking, half the students walk for 0-10 minutes daily (49.7%). 30.9% of the students walked for 11-30 minutes daily. The students who walked for 31-60 minutes are 15.6%. The students who walked for 61-120 minutes are only 3.2%, and 0.6% walked above 120 minutes per day.

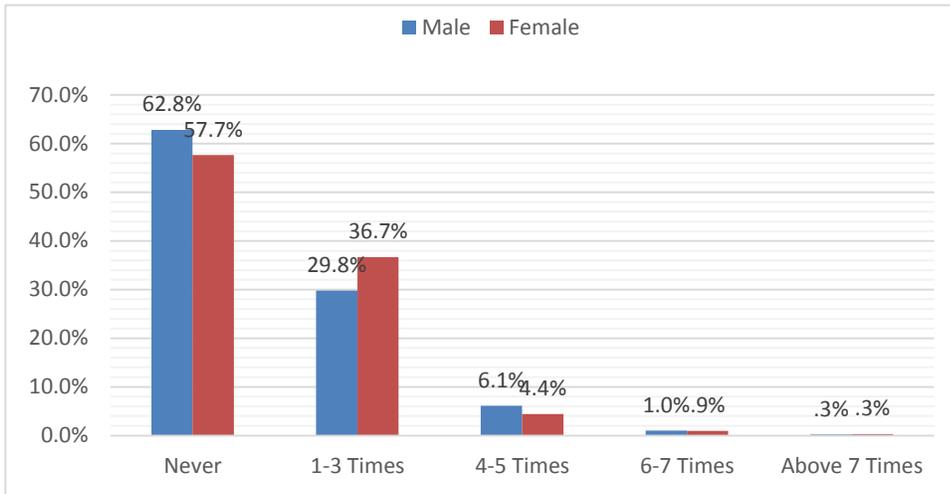


Figure 1. Number of students who do moderate intensity sports per week.

Medical students of Qassim Region, mostly, did not participate in moderate intensity sports (60%). Almost one third of the students (32.9%) did 1-3 times per week moderate intensity sports. Only 5.3% of the students participated 4-5 times per week (Figure 1).

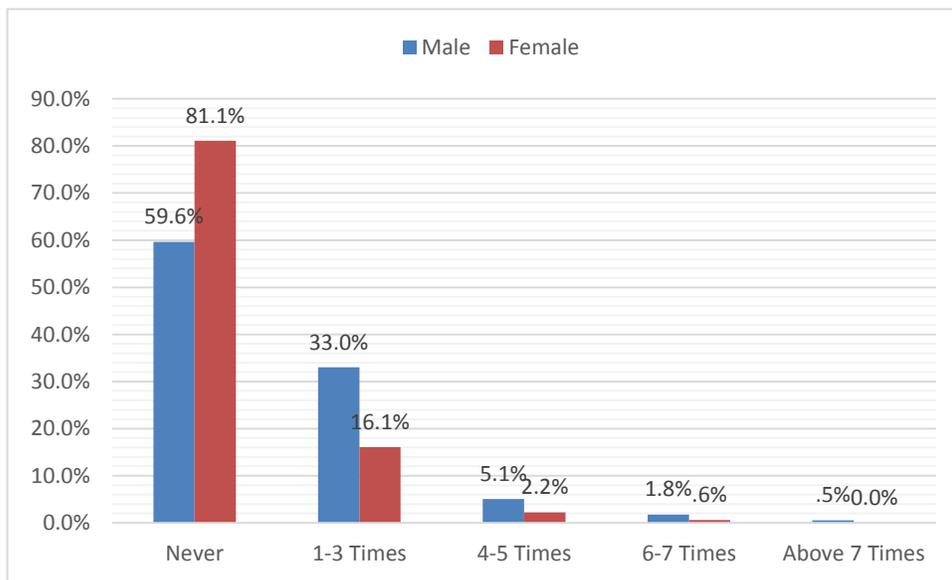


Figure 2. Number of students who do high intensity sports per week.

Almost 70% of the students never participated in high intensity sports. Approximately one quarter of the students, most of them males, participated for 1-3 times per week. 3.8% of the students only participated for 4-5 times per week (Figure 2).

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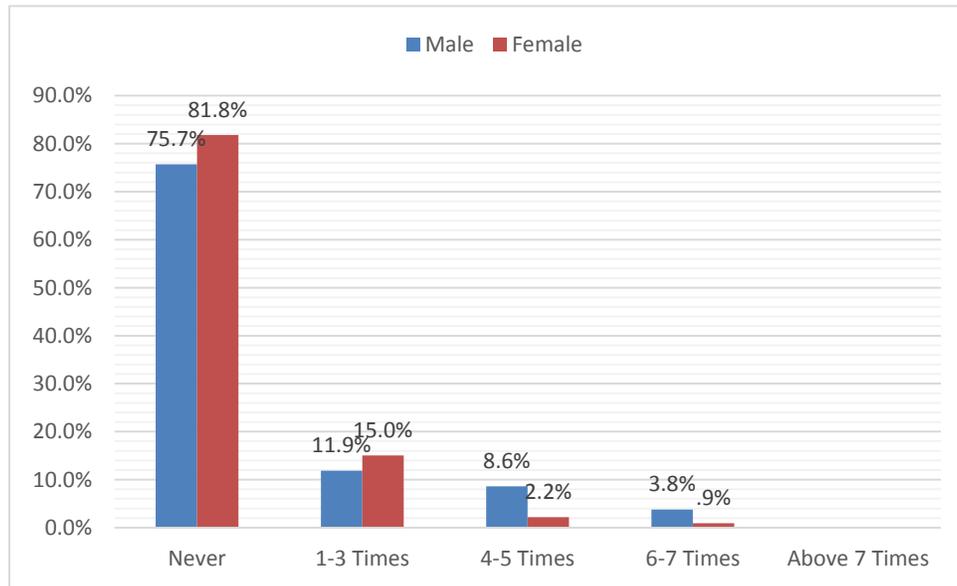


Figure 3. Number of students who do strength training per week.

78.4% of the students did not participated in strength training at all. The students who did it 1-3 times are 13.3%, women are less than men by one participant. 5.7% of the students did strength training for 4-5 times, men, significantly, more than women (Figure 3). Women spent more time (41.1%) than men on exercise (Table 1). Thus, men less than women by 2.8%.

Table 1. Minutes per day spend on exercise

Minutes spend on exercise		Male	Female	Total
Never	Number	243	185	428
	% within Gender	61.7%	58.9%	60.5%
15-30 Min	Number	71	97	168
	% within Gender	18.0%	30.9%	23.7%
31-60 Min	Number	48	25	73
	% within Gender	12.2%	8.0%	10.3%
61-120 Min	Number	29	6	35
	% within Gender	7.4%	1.9%	4.9%
Above 120 Min	Number	3	1	4
	% within Gender	.8%	.3%	.6%
Total	Number	394	314	708
	% within Gender	100.0%	100.0%	100.0%

Students declared that the main reason of not participating is there is no time by 71.9% (Figure 4). For women, there are considerable number that declared the reason is there is no suitable facilities.

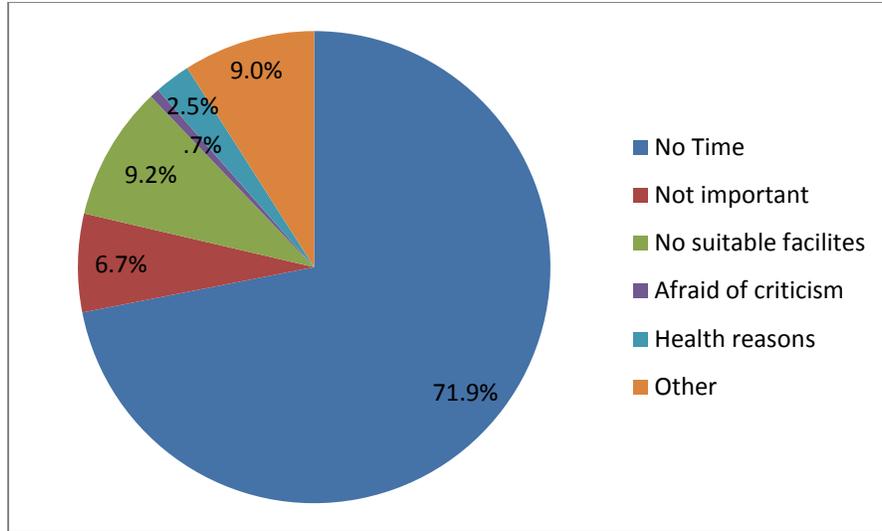


Figure 4. Reasons of not participating on sports regularly

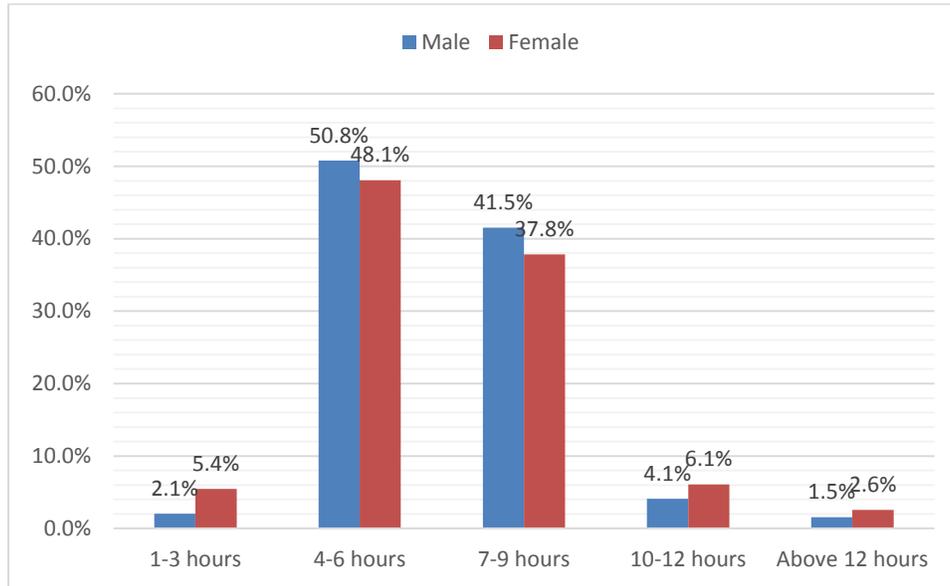


Figure 5. Sleeping hours per day during week days

The students, averagely, slept 4-6 hours during week days (49.6%). Almost 40% of the students slept 7-9 hours per day. Men spent more time sleeping. Thus, women slept less during week days, which 5.4% of female students slept 1-3 hours, unlike male students only 2.1% (Figure 5).

Lifestyle of Medical students at Qassim University

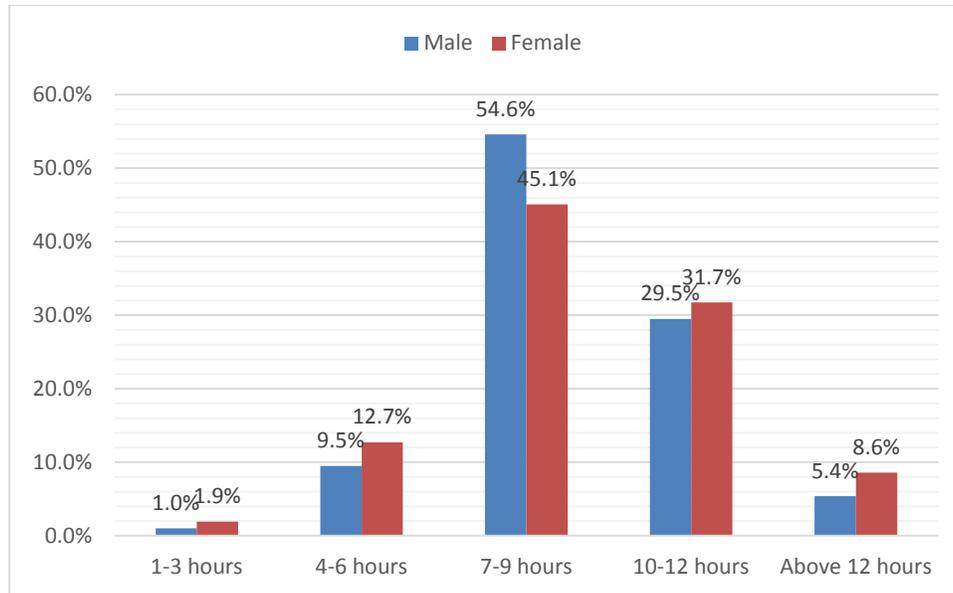


Figure 6. Sleeping hours per day during weekends

During weekends, students spent more time sleeping than weekdays, more than half of the students slept over 7 hours, men more than women. Approximately, one-third of the students slept over 10 hours (30.5%). Women who slept over 12 hours are more (8.6%) than men (5.4%) (Figure 6). In the survey on the opinion of sleeping hours per week days, almost three-quarters of the students (73.7%) think they should spend 7-9 hours of sleeping, 13.4% think they should sleep less and 9.5% think they

should sleep more. On the question asked about falling in sleep during lectures per week, 71.6% of the students never felled in sleep during lectures. 24.1% of the students rarely felled in sleep.

More than one-third of the students spent 1-2 hours per day for watching TV, movies, and playing video games during week days (Table 2). Women, significantly, more (34.9%) than men (13.3%) who do not watch or play during week days.

Table 2. Watching TV, movies, and playing video games per day during week days

Watching TV, movies, and playing video games		Male	Female	Total
Never	Number	52	110	162
	% within Gender	13.3%	34.9%	22.9%
1/2 hours	Number	66	41	107
	% within Gender	16.8%	13.0%	15.1%
1-2 hours	Number	148	103	251
	% within Gender	37.8%	32.7%	35.5%
3-4 hours	Number	75	41	116
	% within Gender	19.1%	13.0%	16.4%
Above 4 hours	Number	51	20	71
	% within Gender	13.0%	6.3%	10.0%
Total	Number	392	315	707
	% within Gender	100.0%	100.0%	100.0%

During weekends, more than one quarter of the students spent 3-4 hours on watching TV, movies, and playing video games (Table 3). Male students spent more time on these activities during weekends.

Considering that the students are almost equally different by the time spent. Also, there is notable number of students who did not do these activities at all (15%).

Table 3. Watching TV, movies, and playing video games per day during weekends

Watching TV, movies, and playing video games		Male	Female	Total
Never	Number	40	66	106
	% within Gender	10.2%	21.0%	15.0%
1/2 hours	Number	46	17	63
	% within Gender	11.7%	5.4%	8.9%
1-2 hours	Number	92	88	180
	% within Gender	23.4%	28.0%	25.5%
3-4 hours	Number	113	78	191
	% within Gender	28.8%	24.8%	27.0%
Above 4 hours	Number	102	65	167
	% within Gender	26.0%	20.7%	23.6%
Total	Number	393	314	707
	% within Gender	100.0%	100.0%	100.0%

Using computer, cellphone, or internet for leisure during week days is high. 64% of the students spent 3 hours and more (Table 4). 26.6% of the students spent 1-2 hours during week days.

Table 4. Using computer, cellphone, or internet for leisure during week days

Using computer, cellphone, or internet for leisure		Male	Female	Total
Never	Number	8	11	19
	% within Gender	2.0%	3.5%	2.7%
1/2 hours	Number	21	26	47
	% within Gender	5.3%	8.2%	6.6%
1-2 hours	Number	102	87	189
	% within Gender	25.9%	27.5%	26.6%
3-4 hours	Number	133	91	224
	% within Gender	33.8%	28.8%	31.5%
Above 4 hours	Number	130	101	231
	% within Gender	33.0%	32.0%	32.5%
Total	Number	394	316	710
	% within Gender	100.0%	100.0%	100.0%

In weekends, usage of computer, cellphone, and internet for leisure is increase (Table 5). Students used computer, cellphone, and internet more than 4 hours by 51.9%.

Table 5. Using computer, cellphone, or internet for leisure during weekends

Using computer, cellphone, or internet for leisure		Male	Female	Total
Never	Number	6	8	14
	% within Gender	1.5%	2.6%	2.0%
1/2 hours	Number	20	11	31
	% within Gender	5.1%	3.5%	4.4%
1-2 hours	Number	61	52	113
	% within Gender	15.6%	16.6%	16.0%
3-4 hours	Number	97	84	181
	% within Gender	24.7%	26.8%	25.7%
Above 4 hours	Number	208	158	366
	% within Gender	53.1%	50.5%	51.9%
Total	Number	392	313	705
	% within Gender	100.0%	100.0%	100.0%

There are only 26 students from 702 (24 are men and 2 are women) are smokers (Table 6). 2.8% of the students smoked more than 15 Cigarettes.

Table 6. Cigarettes smoking per day

Cigarettes smoking		Male	Female	Total
Never	Number	367	309	676
	% within Gender	93.9%	99.4%	96.3%
1-5 Cigarettes	Number	5	1	6
	% within Gender	1.3%	.3%	.9%
6-10 Cigarettes	Number	5	1	6
	% within Gender	1.3%	.3%	.9%
11-15 Cigarettes	Number	3	0	3
	% within Gender	.8%	0.0%	.4%
More than 15 Cigarettes	Number	11	0	11
	% within Gender	2.8%	0.0%	1.6%
Total	Number	391	311	702
	% within Gender	100.0%	100.0%	100.0%

For hookah (shishah) smoker, students who smoked it is higher than students who smoked Cigarettes. 95.2% of the students are never smoked hookah (Table 7).

Table 7. Smoking hookah (shishah) per week

hookah Smoking		Male	Female	Total
Never	Number	362	309	671
	% within Gender	92.8%	98.1%	95.2%
1-3 Times	Number	13	6	19
	% within Gender	3.3%	1.9%	2.7%
4-6 Times	Number	9	0	9
	% within Gender	2.3%	0.0%	1.3%
7-10 Times	Number	3	0	3
	% within Gender	.8%	0.0%	.4%
More than 10 Times	Number	3	0	3
	% within Gender	.8%	0.0%	.4%
Total	Number	390	315	705
	% within Gender	100.0%	100.0%	100.0%

Table 8. having breakfast every day per week

Frequency	Male	Female	Total
Never	4.6%	4.1%	4.4%
Rarely	18.3%	18.4%	18.3%
Some times	26.5%	25.3%	26.0%
often	22.6%	17.4%	20.3%
Always	28.0%	34.8%	31.0%

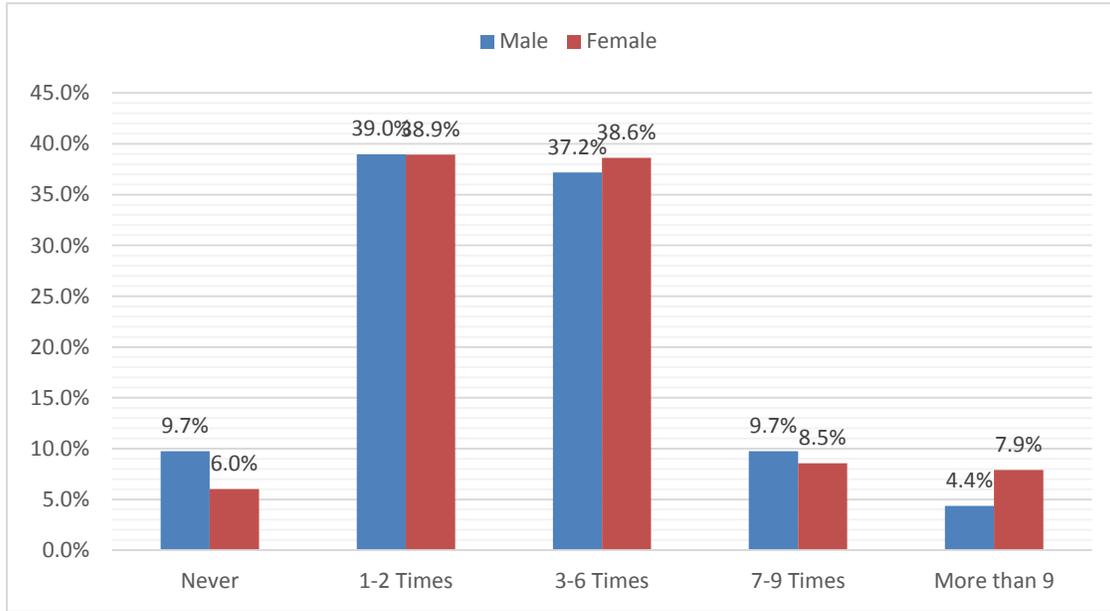


Figure 7. Eating Fruits or vegetables meals per week

Most of the students ate vegetables and fruits 1-2 times per week by 39%. Close to it, the students who ate 3-6 times are 37.8%. females are more (7.9%) than males of the students that ate more than 9 times (Figure 7).

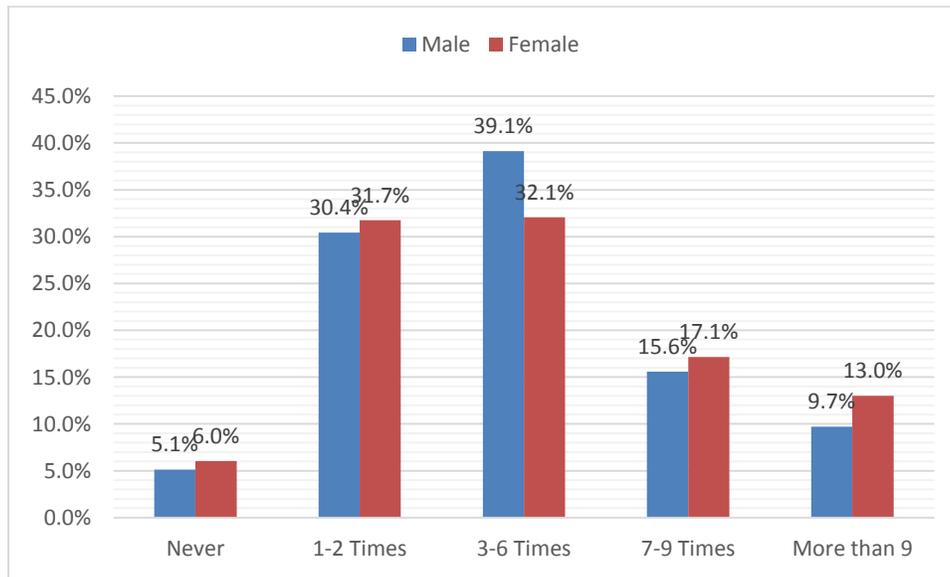


Figure 8. Eating dairy products per week

36% of the students ate dairy products 3-6 times per week, which is the most, also, men ate dairy products more than women. 31% of the students ate them 1-2 times per week. Students who ate dairy products more than 9 times are 11.2%, and women are more than men by 3.3% (Figure 8)

Fast food consumption is significantly high (93.7%). 47.8% of the students, which is the most,

ate fast food for 1-2 times per week and about 34.0% ate 3-6 times per week. While the rest of the respondents (11.9%) are eating fast food more than 7 times per week.

On the other hand, 6.3% of the students are never eating fast food, last year students represent the most. (Table 9).

Table 9. Eating fast food per week

Eating fast food		Male	Female	Total
Never	Number	16	29	45
	% within Gender	4.1%	9.1%	6.3%
1-2 Times	Number	152	187	339
	% within Gender	38.8%	59.0%	47.8%
3-6 Times	Number	162	79	241
	% within Gender	41.3%	24.9%	34.0%
7-9 Times	Number	39	14	53
	% within Gender	9.9%	4.4%	7.5%
More than 9	Number	23	8	31
	% within Gender	5.9%	2.5%	4.4%
Total	Number	392	317	709
	% within Gender	100.0%	100.0%	100.0%

In this study, half of the surveyed (362) are eating French fries and potato chips are on average of 1 – 2 times per week and one-quarter of them ate 3-6 times per week. While students who are never eaten equal 16.6%, Women and men are averagely equal. On the other hand, eating sweets is a habit for most students (86.6%). Females who ate more than 9 times per week equal 11.4%. Thus, males who are eating more than 9 times equal 6.6%. Generally, students ate sweets 3-6 times per week (38%). While students who are not eating sweets consume 4.6% of the whole sample.

DISCUSSION

Many factors play an important role in determining a healthy from a non-healthy lifestyle. starting with physical activity, the study showed that 18.9% of the students walked more than 5 times weekly. On the other hand, 36.4% almost never walked on a regular basis, while 3 out of 10 respondents confirmed walking from 11-30 minutes per day.

About two thirds (60.5%) declared never participating in any kind of exercise, while 21.2% engaged for at least 1 hour of workout daily. (36.7%) of females did, at least, 1-3 sessions of moderate intensity training more than males (29.8%). Looking at high-intensity training, male students (33%) almost double the percentage of females (16.1%)

taking place in high-intensity sports such as soccer, swimming, and basketball.

From a strength perspective, more than quintuple of both genders (21.5%) did lifting for, at least, 3 times per week. Finally, students listed the main reasons for not participating in physical activity or sports regularly, a big portion represented by 71.9% stated that there is no time, the other 28.1% was approximately equally divided between 1- no suitable facilities, 2- afraid of criticism, 3- health reasons, 4- did not like to, and 5- others.

Important to note that there is no significant difference in the percentages between the academic years in the physical activity department.

Sleep is one of the most pillars of a healthy lifestyle, balancing between sleep, studying hours and personal life are considered the problems that face medical students. In this study, it has been found that the ratio of sleep hours differed from level to another, the same applies to male and females. It is also shown that the pattern of sleep is changed from weekdays to weekends.

On weekdays, about half of the students (49.6%) slept from (4-6 hours), while in the weekends almost the same percentage (50.4%) tended to sleep more (7-9 hours). On the other hand, 44.1% slept more than 10 hours. It also differed from one level to another. For example, in weekdays, 5 out of 10 of first-year students slept more than 7 hours. Furthermore, 10.9% of them slept more than 10 hours on weekdays.

From a gender perspective, males tended to sleep more than females in weekdays and weekends. This was different from what was found in Universities in Wrocław, Poland which stated that females slept more than males (6).

When students were asked about their opinion on how much sleep they should get, the majority (73.7%) agreed to 7-9 hours per day. (11.8%) answered more than 10 hours, while (14%) said less than 6 hours.

Watching TV and playing video games is phenomenon activity among students during weekdays (77.1%). For example, watching movies, TV shows, TV programs, PlayStation and Xbox. More than one third (35.5%) of the students watched TV and played video games. Male students, significantly, more (37.8%) than females (32.7%) on watching TV and playing video games for 1-2 hours a day. During weekdays, female participants are not interested in watching TV (34.9%) than males (13.3%).

Male students who watched TV over 3 hours per day were (32.1%), considering that, female students were less than males by 12.8%. During weekends, Watching TV and playing video games students were, noticeably, increased (85%). Male students spent more time on TV and video games activities during weekends than females (males 89.8%, females 79).

25.5% of the participants watched TV and played video games on weekends for 1-2 hours daily, and 27% for 3-4 hours a day. However, 26% of the male surveyed students are higher than females by

5.3% who did watch TV and play video games more than 4 hours a day.

Usage of computers, cell phones, or the internet for leisure during weekdays was huge (97.3%). Almost two thirds (64%) of the respondents spent more than 3 hours per day, and more than one-fourth (26.6%) spent 1-2 hours daily during weekdays. In weekends, usage of the computer, cell phone, and the internet is increased.

5 out of 10 participants used (51.9%) computer, cell phone, or the internet more than 4 hours every day. A study on students of Wrocław universities in Poland showed that nearly 80% of the students spent more than 2 hours a day, Qassim Region medical students who used computers in their free times were 90.6% ⁽⁶⁾.

In a lifestyle study, it is important to evaluate the unhealthy lifestyle habits too. Smoking is one of them and there are two types of smoking popular in the society, which they are smoking cigarette or hookah. For cigarette only 3.8% student did smoke, but for males, it was significantly higher (6.2%) than females (0.6%). On the other hand, the percentage increased for smoking hookah to reach 4.8% for both genders and 7.2% from male perspectives.

Drinking coffee is a popular thing among medical students (85.4%). Students who did not drink coffee at all were 14.6% while (28.6%) of students were drinking at least one cup per day. About 26.6% of respondents drink 2 cups of coffee per day, and about 19.9% drink over 3 cups per day. Female students who drink more than 4 cups were (12.7%) while the male students were (8.4%).

CONCLUSION

Most of the participants don't follow recommendations of a healthy lifestyle. To improve these results. we need to increase education programs on the preventive health care measures and improve the awareness of healthy behaviors among students at the Medical colleges as well as the teaching programs at the medical schools

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