

Republic of Iraq

Ministry of Higher Education and Scientific Research

University of Kerbela

College of Medicine

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Comparison between Medical and Non medical Students regarding Life Style Characteristics in Kerbala University

A thesis submitted to the Scientific Council of College of Medicine in Kerbala university As a Partial fulfillment for the Degree of High Diploma in Family Medicine

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2022 A.D.

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(بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ)

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(٢٥) وَيَسِّرْ لِي أَمْرِي (٢٦)﴾

صدق الله العلي العظيم

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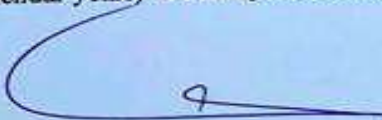
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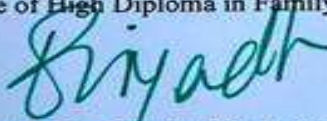
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To

My lovely family

My husband, Ahmed

My sons, Danyal and Masa

Acknowledgement:

... First and foremost, praise and thanks goes to Allah, the Almighty, for the blessings throughout my research work, which enabled me to finish it successfully. I also want to express my sincere gratitude to my research supervisors, Dr. Basheer Akeel Al-Ali and Dr. Sara Majid, for overseeing this research; their guidance and advice helped me through every stage of writing my research. Finally, I want to acknowledge and deeply appreciate my colloquies for their unwavering support, encouragement, and love.

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List of abbreviations:

BMI	Body mass index
FBDG	Food based dietary guide line
Kg	Kilogram
min	Minute
PA	Physical activity
UAE	United Arab Emirates
UTI	Urinary tract infection
WHO	World health organization

Abstract

Background: Academic success in school and in higher education is influenced by health. Therefore, in the context of Universities or Colleges, encouraging effective learning entails encouraging the health and well-being of all participants. A sizable portion of the young adult population are students. They typically begin a dynamic period of adjustment to their new level of independence from their parents, which is characterized by quick, connected changes in their bodies, minds, and social relationships. The primary goal of the study was to assess the dietary habits of medical students, to compare how they ate to non-medical students, and to try to determine what variables contributed to the students eating habits.

Subjects and Methods: The study was performed over 6 months (April 2022-September 2022) in Kerbala University among two groups: Medical and non-medical. The study was conducted in a cross-sectional method and was approved by the College of Medicine of University of Kerbala. Medical and non-medical students of Kerbala university were given a self-administered, predesigned questionnaire. The questionnaire consisted of three sections. In the first section, demographic information was included to assess the socioeconomic status of the participants. The second section contained questions about diet, exercise, smoking, and sleeping habits. The questionnaire was distributed by direct paper questionnaire with informed consent.

Results: The number of students who responded positively to the survey was 400, mean age [21.8 ± 1.6] years, most age group of cases are 24 ≥ years [95%], [56.6%] of cases are females and [43.4%] are males, [84.5%] of them unmarried, [97.8%] of cases have no chronic disease, just [19.2%] are smoking, and [86%] of

cases live with their family, [37.4%, 37.2%] of cases in 4th and 2nd academic year respectively . Among the medical students , [61%] of students sometimes considered the breakfast as important meal, Exercise [51%] of medical students walking. Sleeping habit, time going to bed [43%] of medical students go to bed from 11pm to 1am, [12%] of medical students are smoking.

Conclusion: In our research, it was found that although medical students had a greater level of understanding of dietary and lifestyle behavior, it was not represented in their practices, which needed to be addressed.

Chapter One

Introduction

1. Introduction

Academic success in school and in higher education is influenced by health. Therefore, in the context of Universities or Colleges, encouraging effective learning entails encouraging the health and well-being of all students. A sizable portion of the young adult population are students. They typically begin a dynamic period of adjustment to their new level of independence from their parents, which is characterized by quick, connected changes in their bodies, minds, and social relationships. They also encounter a new environment, which typically involves more work and stress, altered routines, and other factors that significantly contribute to unhealthy lifestyles. College students become more susceptible to conditions including prehypertension, psychological signs of mental illness, obesity, and being overweight. Typically, these behaviour patterns and their effects continue throughout adulthood, endangering people's "health status in later life" ⁽¹⁾. Any population's dietary and health practices may provide insight into their overall health and the severity of their risks for developing lifestyle diseases like obesity, type 2 diabetes mellitus, dyslipidaemia, smoking, related lung conditions, hypertension, and coronary heart disease, which are collectively the leading causes of death in all developed nations. A key factor in the pathophysiology of the mentioned illnesses is diet, including the type and quantity of food consumed. College students, who are the community's young adult population, are more likely than other age groups to engage in unhealthy eating and poor health behaviours during their college years ⁽²⁾. College students are susceptible to making poor dietary decisions that may result in serious health issues. Majority of undergraduate students eat at college dining facilities with limited healthy food options. Although it is strongly emphasized that satisfying dietary needs every day

is essential for achieving optimal health, many college students choose to give their nutritional needs less thought or attention. This can have negative effects on their academic or physical performance. Many factors come in to play as they transition to college life. Many of them move away from their parents' house, adjust to social and environmental changes, accept new financial obligations, form new social networks, and have different time demands ⁽³⁾. One of the key elements in choosing a nutritious and healthy diet is nutrition knowledge ⁽⁴⁾. One of the main causes of nutritional problems, which has an adverse influence on dietary practices, is improper nutritional knowledge. Also, understanding of nutritional attitude and beliefs of the community are essential factors to improve healthy eating, effectively ⁽⁵⁾. When knowledge influences attitudes and beliefs, it can affect how people behave in relation to their health⁽⁶⁾. Whilst it is acknowledged that nutrition forms an important part of health management, it has been reported that nutrition training of medical students is inadequate in both quality and quantity ^(7, 8). It is often assumed that the medical students have a greater knowledge about healthy lifestyle and dietary habits when compared to non-medical students. However, there is no evidence to indicate that this knowledge is translated into maintaining good health practices ⁽⁹⁾. Being future doctors, healthy eating habits are even more crucial for medical students, and those who don't prioritize living a healthy lifestyle for themselves are more likely to fail to support patient health promotion initiatives. Numerous studies have demonstrated that adopting a new habit or changing old behaviour requires a lot of input, including knowledge, awareness of the issue, attitude, and perception. The majority of authors concluded that while behaviour is unlikely to alter in the absence of increased knowledge, prevention behaviour cannot significantly improve on its own ⁽¹⁰⁾. However, when mediated by attitudes, beliefs, self-efficacy, and an effective call to action, knowledge can affect health-related behaviours ^(6, 11). It has been demonstrated that having a basic

understanding of nutrition can assist anybody, including students, maintaining good eating habits and the right body weight. University students make up a sizeable portion of the population who can contribute significantly to their families' and society's understanding of good eating and lifestyle choices. One of the essential components for altering dietary and lifestyle practices to improve the nutritional status of individuals, families, and societies is nutrition knowledge. Poor dietary decisions can result in inadequate and improper nutrient intake, which has a negative impact on students' health and academic performance. Increased nutrition knowledge has been linked to selecting healthy foods and aiding in following dietary recommendations. Many university-aged students engage in harmful dietary practices to cope with their stress factors, such as consuming sugar-sweetened beverages and unhealthy energy-dense fast food. The majority of students skip breakfast, sometimes even lunch, and instead snack all day long on things like crackers, chips, muffins, and sweets⁽¹²⁾. Normal behaviour connected to eating habits, choosing the foods consumed, culinary preparations, and volumes of intake" is the definition of eating behaviour⁽¹³⁾. The way we eat has an impact on our long-term health because it is known that poor eating habits, such as skipping meals and consuming foods that are low in nutrients, can lead to a variety of health issues and nutritional deficiencies^(14, 15). When entering university life, a vital time when young adults' behaviour, including eating habits, are likely to change as they develop independence in making food decisions, college weight gain is likely to occur. With insufficient nutrient intake, these individuals are more likely to develop harmful eating habits. Along with dietary changes, ineffective exercise routines, poor time management, and rising levels of stress related to schoolwork all contribute to weight gain. Moreover, numerous fast food outlets, coffee shops, and restaurants have opened up recently, giving college students more options for eating out rather than preparing their own meals. It's possible for bad eating habits

to last into adulthood throughout this stage of life. University students can benefit from education about the significance of preventing early obesity development by adopting healthy lifestyles by studying changes in food patterns and lifestyle practices ⁽¹⁶⁾. The Body Mass Index (BMI), which compares weight to height, is used by the World Health Organization (WHO) to categorize adults: An individual has a normal weight if their BMI ranges from 18.5 to 25, according to the BMI chart. BMI of 25 to 30 is considered overweight, whereas BMI of 30 or more is considered obese ⁽¹⁷⁾. The dietary practices of university students will carry over into later life, playing a long-term role in dietary behaviour and food consumption, as this is an essential period in habit formation. The important factors that influence the patterns of dietary consumption are eating habits, changes in perceived knowledge about nutrition, income status, and cultural beliefs, as well as social economic, and geographical limitations. In order to maintain their body's fluid equilibrium, students are also more likely to consume coffee, tea, and soda than fruit juice or plain water. High coffee consumption has been linked to a number of health conditions, including heart attack, stroke, liver cirrhosis, UTI, upset stomach, and more. Fruit juices, on the other hand, are a great source of vitamin C, carotenoids, and polyphenols, all of which have positive effects on health. Many obstacles can make it difficult for university students to maintain good eating habits in their daily lives. Poor physical activity, ignorance, and environmental factors may all contribute to these obstacles.

Additionally, a variety of factors, including lack of knowledge about selecting healthy foods and poor coping mechanisms for stress during study periods, might have a negative impact on eating behaviour. Many students claim that they are not interested in cooking nutritious meals and simply perform occasional assessments of their nutritional status. The availability of a range of foods affects students' preferences when choosing food. The most well-documented diet-related factors

for students are the challenge of preparing healthy food, the simplicity of preparing junk food, the unavailability of healthy food products, their delectable taste, the attractive promotion of unhealthy diets, and the high cost of healthy food. Due to these factors, promoting qualitative improvements in food consumption and adaptation to healthy eating habits among university students is difficult. It has been suggested that one of the best ways to prevent several non-communicable diseases is to offer nutritional programs at the university level to educate students about the importance of nutrition and balanced diets ⁽¹⁸⁾. To combat the rising prevalence of overweight and obesity later in life, programs to promote healthy eating among students are required ⁽¹⁹⁾. From the perspective of the educator, the university years are the last time to impart nutritional knowledge to many students ⁽²⁰⁾. According to the World Health Organization, a balanced diet should include 400 grams of fruits and vegetables (excluding potatoes), 30 to 5 percent of calories from fat and free sugar, and 5 to 10 grams of salt each day ^(21, 22). 312 grams of fruits and vegetables for men (15–29 years old) and 348 grams for women are the estimates for Iraq and the Eastern Mediterranean, compared to 423 grams for men and women in European nations with exceptionally low child and adult mortality rates ^(23, 24). The diet of students from different countries is often classified as unhealthy, poor in fruit and vegetables, with irregular eating patterns and a high frequency of fast food choices, which is of particular concern because the eating habits established in this period of life may have a considerable effect on people's long-term health ⁽²⁵⁾. Young adults can play significant roles in society (such as doctors, lawyers, health ministers, and police officers), as well as being decision-makers and having significant behaviour patterns and attitudes, so the health and lifestyle behaviours of university students are of interest to public health. Furthermore, behaviours adopted by students during their university education have the potential to have an additional impact on the community ⁽²⁶⁾. As a result, measures specifically created

to increase nutrition knowledge are required, especially with regard to information concerning sources of nutrition and appropriate weight management ⁽²⁰⁾. Although it has been noted that students' eating habits alter as they progress through their studies, the research has often either been conducted on students in general or on physical education students. In spite of the fact that medical students are considerably more aware about the value of a good diet, regular exercise, and the detrimental consequences of substance use on physical and mental health, very few research have examined their eating habits and lifestyles. Medical students should be the most knowledgeable people and embrace a healthy lifestyle, who then encourage their professional careers. Given that research on medical students are extremely rare, and the majority of them assess how nutrition instruction in higher education affects modifying eating habits ^(27, 28). Difficulties sleeping is also regarded as a problem, A healthy life and a well-functioning body depend on getting enough, balanced sleep, which is one of the most crucial factors. Adults typically sleep between 7 and 8 hours each night, with a biphasic pattern being the most beneficial for health ^(29, 30). In addition, those who get less sleep tend to eat more energy-dense foods with higher percentages of calories coming from fats or refined carbs, eat fewer fruits and vegetables, and have irregular eating schedules ⁽³¹⁾. In the modern world, sleep disorders are widespread; about one-third of adults say they have some kind of sleeplessness ^(32, 33). Studies showed that medical students have more sleep-related problems compared to non-medical students. For example, 70% of Hong Kong medical students self-reported sleep deprivation ⁽³⁴⁾. Iranian students, 40.60 percent of them reported having trouble sleeping ⁽³⁵⁾. Physical exercise is any bodily activity that enhances or maintains physical fitness and overall health. Physical exercise is important for maintaining physical fitness and can contribute to maintaining a healthy weight, regulating digestive health, building and maintaining healthy bone density, muscle strength, and joint mobility,

promoting physiological well-being, reducing surgical risks, and strengthening the immune system. Some studies indicate that exercise may increase life expectancy and the overall quality of life ⁽³⁶⁾. Regular physical activity is linked to numerous physical, psychological, and physiological advantages and is extremely effective in preventing a wide range of diseases. On the other hand, living a sedentary lifestyle is strongly associated with numerous illnesses. In most western populations, obesity and chronic disease are connected with physical inactivity. However, assessments of the frequency of inactivity, health beliefs, and awareness of the consequences of inactivity across a wide variety of industrialized and developing countries have been rare ⁽³⁷⁾. Even during youth and the transition to them, and more especially during the time spent studying at the university, there is a rise in the disrespect for a healthy lifestyle and a decline in the practice of moderate to intense physical exercise. For the promotion of physical exercise, now is a crucial time, especially among women who are beginning to scale back on their participation in physical activity⁽³⁸⁾. Smoking is a major factor in both morbidity and mortality. Smoking is strongly linked to obesity-related behaviour, such as improper eating, in addition to the independent dangers connected with cigarettes. Smoking decreases hunger and boosts feelings of fullness. Generally speaking, smokers weigh 4–5 kg less than non-smokers. It's a frequent misconception that smoking is a good way to regulate your weight. Nevertheless, there is some evidence to suggest that smokers underestimate their ability to control their weight. 26% of male smokers and 50% of female smokers worry that they may gain weight after quitting. In fact, 49% of smokers gain weight after quitting. Smokers, however, eat more fat and calories than non-smokers do. Smoking is linked to increased central adiposity and a higher risk of metabolic syndrome, type 2 diabetes, and cardiovascular disease. Smoking and obesity-related habits tend to co-occur, which has multiple negative consequences on health, increasing illness

risk and reducing life expectancy ⁽³⁹⁾. The Ministry of Health in the Kingdom of Saudi Arabia published food-based dietary guidelines (FBDG) in 2012 with the goal of changing people's lifestyles and promoting a healthy diet ⁽⁴⁰⁾. Various studies have been focused on assessment of knowledge and practices regarding nutrition, exercise, sleeping habits, smoking among medical students. In a Japanese study, almost half of the dental students missed one of the three main meals ⁽⁴¹⁾. Another cross-sectional survey in the UAE revealed that many medical students were overweight or obese, and the majority of them thought that their activity levels were insufficient, their stress levels were too high, and their diets were harmful ⁽⁴²⁾. Studies also reveal that a significant portion of medical students lack proper physical activity and have hazardous behaviour like smoking ^(9, 43). Globally, the literature reveals that students frequently engaged in bad eating habits and had inadequate nutritional intake during the changeover period from secondary level to graduate level ^{(19),(44)}. In spite of being in medical school, a recent cross-sectional study on the lifestyle and eating habits of medical students at the University of Dammam found a significant percentage of students who consumed a lot of fast food and soft beverages. However, there was a low reported rate of regular exercise among medical students ⁽²⁾. According to another study from Pakistan, there were no appreciable differences in the dietary and lifestyle habits of medical and non-medical students. They noted that just 35.6% of students reported that eating two meals each day, and that breakfast was the meal that was most frequently skipped by students (48.8%)⁽⁴⁵⁾. A cross-sectional study that looked at the prevalence of obesity and the eating habits of college students in Saudi Arabia found that 15.7% of them were obese and 21.8% were overweight ⁽⁴⁶⁾. A study on university students in China revealed that only 7% of students applied the idea of a healthy dietary intake when choosing food. But the majority (51%) expressed a willingness to find out more about a healthy diet. Similar research on

university students in Sweden revealed that, while being more susceptible to stress, women had healthier behaviour. On the other side, male students had higher levels of obesity and showed less interest in health-promoting activities, dietary counselling, and physical activity. They also consumed more alcohol ⁽⁴⁷⁾. As a result, the primary goal of the study was to assess the dietary habits of medical students, compare how they ate to non-medical students, and try to determine what variables contributed to the students' poor eating habits.

Chapter Two

Subjects and Methods

2. Subjects and Methods

2.1 Study design and setting :

This study was performed over 6 months (April 2022- September 2022) in Kerbala University on two groups: Medical and non-medical .The students were conducted in a cross-sectional method. It was approved by college of medicine University of Kerbala

Study participants:

The participants within each college were selected randomly, including four college at Kerbala university; colleges of medicine,pharmacy,engeneering and education

Inclusion criteria:

Students less than 30 years.

Students willing to participate.

Sample size: The sample size was 400

Ethical-related consideration: College of Medicine at the University of Kerbala's Research Ethics Committee gave its clearance before the survey was carried out. College of Medicine Ethics Committee examined and approved the study protocol. students' permission was secured before the study data collection process began. Informed consent was gotten both orally and in writing before the questionnaire ever started. Students were informed of the study's goals in order to give their informed consent. Students were also informed that their names would remain anonymous and that their data would be kept private.

2.2 Data collection process:

After providing oral consent to 410 students and after displaying the objective of this study for the students .Ten of the participants were excluded due to incomplete

survey form. The four colleges were selected randomly from university of Kerbala by placing a box containing the choices of all medical and nonmedical colleges.

Medical and non-medical students of Kerbala university were given a self-administered, predesigned questionnaire. The questionnaire consisted of three sections. In the first section, demographic information was included to assess the socioeconomic status of the participants. The second section contained questions about diet, exercise, smoking, and sleeping habits. The questionnaire was distributed by direct paper questionnaire with informed consent. None of the identifications were taken from the participants. The questionnaire was filled in anonymously, in the presence of the researcher and the time required was approximately five minutes. Communication between students was allowed, no any further explanation beyond the general instructions given, response rate =97.5% was validation done to the questionnaire.

Questionnaire development: The researcher had selected 10 questions about socio-demographic characteristics , 9 questions to assess dietary habits 4 questions about exercise . 6 questions to assess sleeping habits, 8 questions to asses smoking habits. questionnaire was translated into Arabic and their information was divided into three main sections.

Section I information: Consists of general socio-demographic characteristics including age, gender , marital status , living with family or not, in which college the participant in, in which academic year ,question if the participants have chronic diseases or not, weight, height and BMI (body mass index): The body weight in kilograms divided by the square of height of the height in meters (i.e., kg/m²).

Section II information: includes questions to assess the dietary habits, it consists of 9 questions These questions included, how many meals does students daily diet

contain, is breakfast an important component in students diet, how often students have snacks between meals (chips, chocolate, sweets), how often the students have stimulants (tea, coffee) in a week, how many cups of milk the students have in a week, how many fish meals does students diet contain in a week, how often the students have vegetables in a week, how often the students have meat in a week, how often the students have fast food in a week, . For this section, answers ranged from always (4) to never (1),question 2 answered by yes or no,

Section III information: This section was used to test:

- 1- **Exercise:** Do you exercise, which sport activities do you often participate in,(ball sports , aerobics, resistance training and others, walking and others, none), find the time for exercising, what is the total time spend in walking daily(10-20 min 30-40 min >50 min),for this section, answers ranged from always (4) to never (1) .
- 2- **Sleeping habit:** What time do you go to bed(<11 pm ,11 pm-1 am ,1-3 am, After 3 am), do you go to bed on time every day, how many hours you sleep daily? (4-6 h, 7-8 h, 9-10 h , >10 h), do you think your sleep duration is enough, do you take a nap during daytime, do you find a relationship between your sleep duration and your energy during the next day, for this section, answers ranged from always (4) to never (1) except Q4,Q5 answered by yes or no.
- 3- **Smoking:** Are you a smoker, do you usually sit with smokers while they are smoking, you have been smoking for?(< 1year,1-2 years,>2 years), what is the main reason that led you to smoking? (friends ,self-esteem ,relatives ,stress), are you aware of its bad effect on your health, did you experience any of these bad effects, do you wish to quit smoking,Q1,2,3 6,7,8 answered by yes or no.

2.3 Statistical Analysis:

Information from the questionnaire from all participants were entered a data sheet and were assigned a serial identifier number. Multiple entry was used to avoid errors. The data analysis for this work was generated using The Statistical Package for the Social Sciences software, version 28.0 (IBM, SPSS, Chicago, Illinois, USA) and the Real Statistics Resource Pack software for Mac (Release 7.2) of the resource pack for Excel 2016, copyright (2013 – 2020)

Descriptive Data analysis

Descriptive statistics was performed on the participants' data of each group. Values were n for categorical variables. The distribution of the data was checked for normality.

Inferential data analysis

Chi square was used to measure the association between categorical variables. Fisher's exact test was used as an alternative when the chi square was inapplicable.

Chapter Three

Results

2. Results:

The clinical demographic characteristics of patients group were summarized in table 1. The mean age of the participants was $[21.8 \pm 1.6]$ years, most age group of cases were $24 \geq$ years [95%]. Gender distributions among the studied groups were [56.6%] females and [43.4%] males. About [84.5%] of them unmarried, [97.8%] were reported to not having any chronic pain. Also, about [19.2%] were smocking, and [86%] of cases live with their family, [37.4%, 37.2%] of cases in 4th and 2nd academic year respectively.

Table 3.1: distribution of cases according study variables

Variables		Frequency	Percentage
Age groups (Years)	24 \geq	380	95
	>24	20	5.0
Gender	Male	174	43.4
	Female	227	56.6
Marital state	Married	61	15.5
	Unmarried	339	84.5
chronic disease	Yes	9	2.2
	No	391	97.8
Smocking	Yes	77	19.2
	No	323	80.8
Live with family	Yes	345	86.0
	No	56	14.0
Academic year	2.0	149	37.2
	3.0	51	12.7
	4.0	150	37.4
	5.0	51	12.7

According to figure 3.1&3.2: about [50.12%] of the students were in medical while [49.88%] were in non-medical colleges. The current study found that more than half of the students had normal body weight [61.35%], while [27.43%] were overweight and only [4.5%] of were reported to be obese.

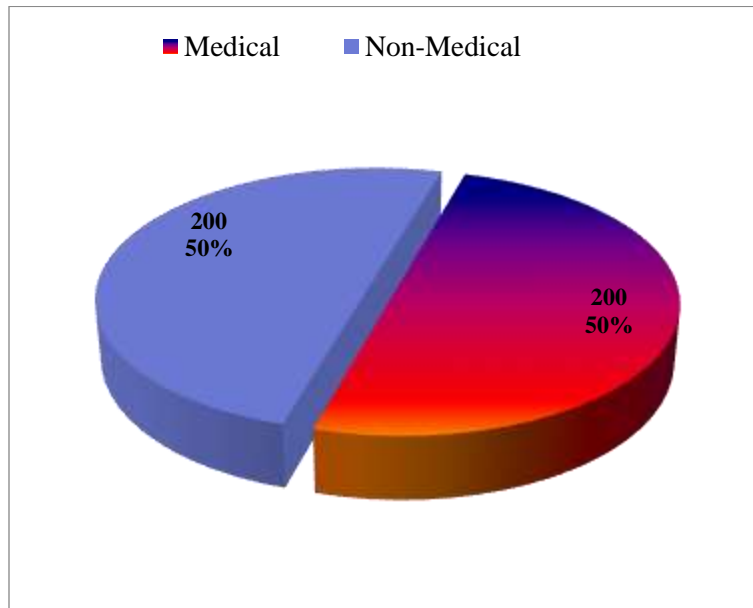


Figure 3.1: Distribution of the cases according to the enrolled colleges

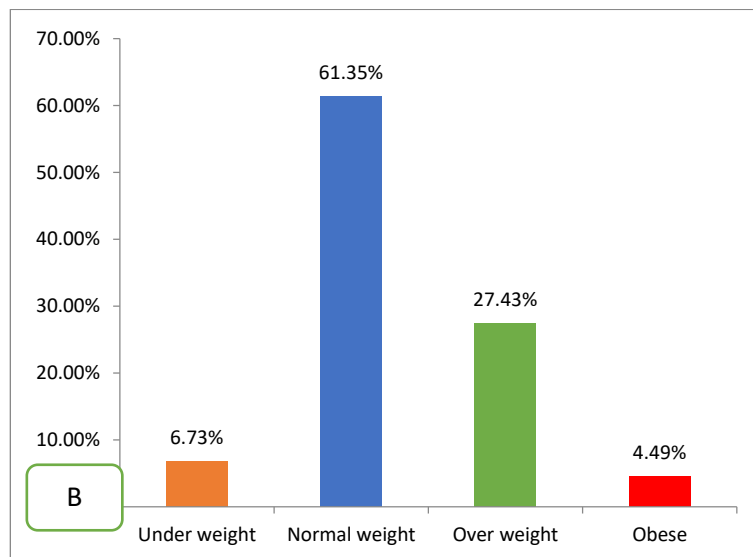


Figure 3.2: Distribution of the cases according to the BMI groups

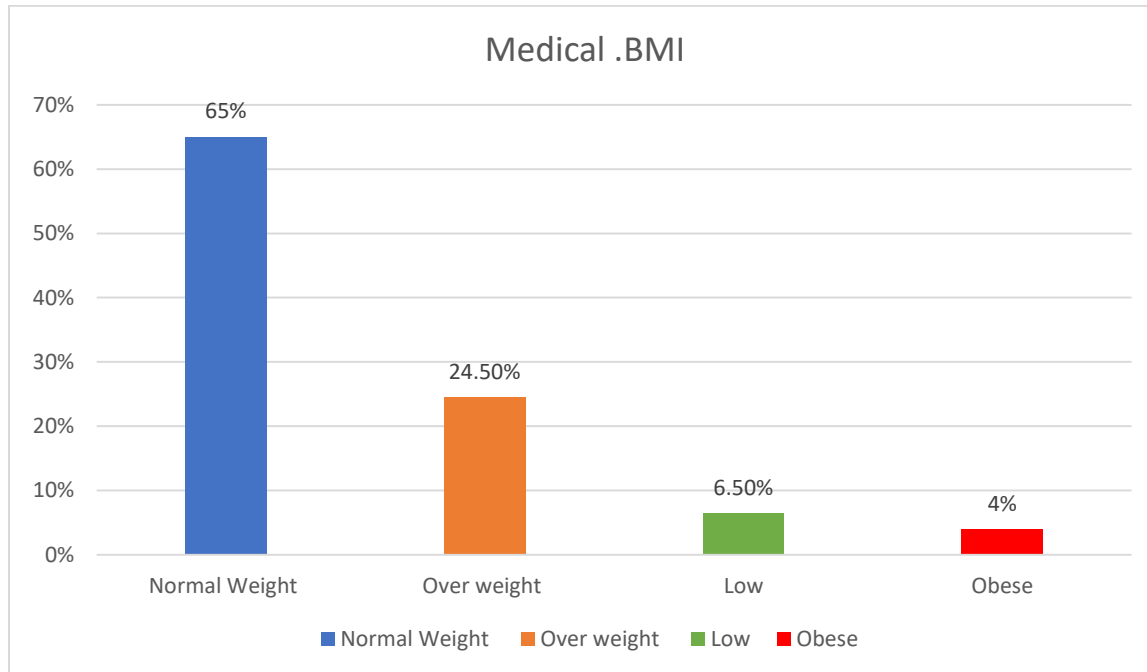


Fig 3.3: distribution of medical students according to BMI.

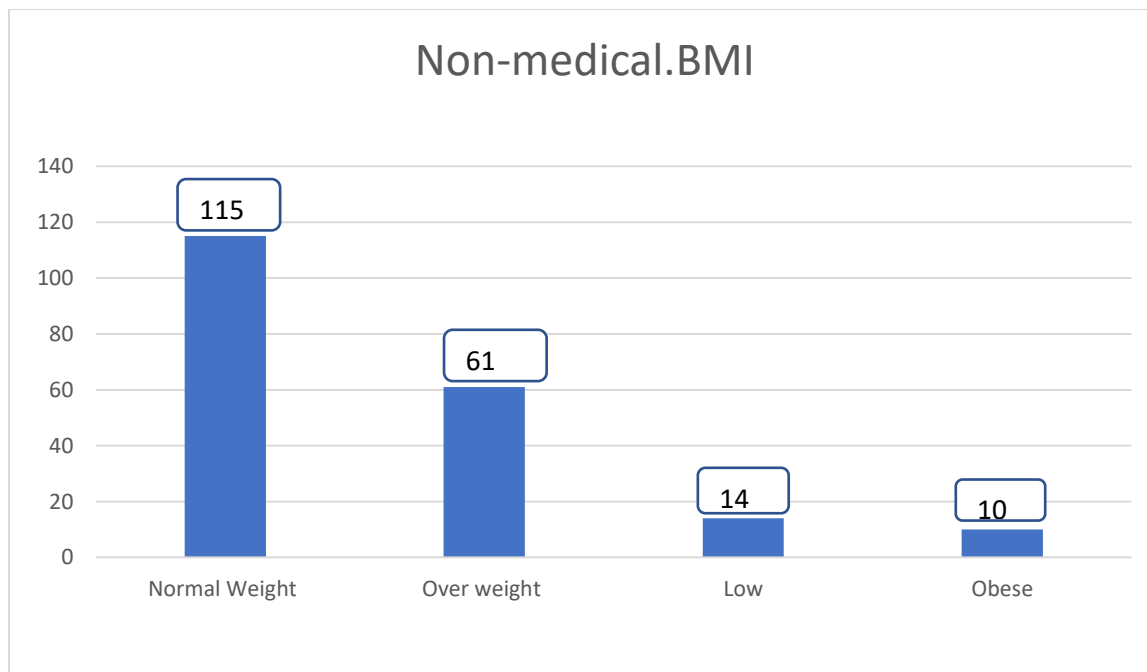


Fig 3.4: distribution of non-medical students according to BMI.

This study also focused on exploring dietary patterns in a culturally diverse population of medical and non-medical students. University students tend to have poor dietary practices, which ultimately affect their nutritional status. There was a significant difference between college groups about the breakfast consideration as an important meal, [39%] of the non-medical students considered the breakfast as important meal while [61%] of medical students considered the breakfast as important meal. Also, medical students indicated a significant preferring a cup of milk in the early morning and eating regular vegetable through the week.

Table 3.2: Comparisons of answers between students of medical and other colleges for diet related questions.

Variables		College Groups		P-value
		Medical	Non-Medical	
No. of meal	<i>1meal</i>	10 (5%)	8 (4%)	0.91
	<i>2meals</i>	84 (42%)	80 (40%)	
	<i>3meals</i>	88 (44%)	92 (46%)	
	<i>>3meals</i>	18 (9%)	20 (10%)	
Breakfast important	<i>Yes</i>	122 (61%)	70 (35%)	<0.001
	<i>No</i>	78 (39%)	130 (65%)	
Snacks between Meals	<i>Never</i>	22 (11%)	15 (7.5%)	0.57
	<i>Rarely</i>	45 (22.5%)	50 (25%)	
	<i>Sometimes</i>	91 (45.5%)	97 (48.5%)	
	<i>Always</i>	42 (21%)	38 (19%)	
Have stimulants (Tea, Coffee)	<i>Never</i>	30 (15%)	25 (12.5%)	0.11
	<i>Rarely</i>	12 (6%)	24 (12%)	
	<i>Sometimes</i>	51 (25.5%)	58 (29%)	
	<i>Always</i>	107 (53.5%)	93 (46.5%)	
Cup of milk	<i>Never</i>	49 (24.5%)	42 (21%)	0.003
	<i>Rarely</i>	43 (21.5%)	64 (32%)	
	<i>Sometimes & always</i>	108(54%)	94(47%)	

Fish meal/week	<i>Never</i>	14 (7%)	23 (11.5%)	0.29
	<i>Rarely</i>	54 (27%)	50 (25%)	
	<i>Sometimes</i>	110 (55%)	112 (56%)	
	<i>Always</i>	22 (11%)	15 (7.5%)	
Vegetable meal/week	<i>Never</i>	9 (4.5%)	25 (12.5%)	0.011
	<i>Rarely</i>	28 (14%)	27 (13.5%)	
	<i>Sometimes & always</i>	163(81.5%)	148(74%)	
Meat meal/week	<i>Never</i>	5 (2.5%)	21 (10.5%)	0.013
	<i>Rarely</i>	7 (3.5%)	6 (3%)	
	<i>Sometimes</i>	85 (42.5%)	83 (41.5%)	
	<i>Always</i>	103 (51.5%)	90 (45%)	
Fast food/week	<i>Never</i>	8 (4%)	25 (12.5%)	<0.001
	<i>Rarely</i>	38 (19%)	15 (7.5%)	
	<i>Sometimes</i>	110 (55%)	85 (42.5%)	
	<i>Always</i>	44 (22%)	75 (37.5%)	

P-value \leq 0.05 (significant)

There was a significant difference between college groups and sport activity types, [51%] of medical students significantly used to walk daily while [44.5%] of nonmedical students have aerobic exercise. Results also indicated that there was a significant difference between the study groups and times of sporting, [37%] of medical students were have times to do sport compare to [65%] of nonmedical students. No further significant difference found as present in table 3.3.

Table 3.3: Comparisons of answers between students of medical and other colleges for exercise related questions.

Variables		College Group		P-value
		Medical	Non-Medical	
Do you exercise regularly?	<i>Never</i>	25 (12.5%)	25 (12.5%)	0.62
	<i>Rarely</i>	47 (23.5%)	45 (22.5%)	
	<i>Sometimes</i>	84 (42%)	95 (47.5%)	
	<i>Always</i>	44 (22%)	35 (17.5%)	
Type of exercise	<i>Aerobic</i>	32 (16%)	89 (44.5%)	<0.001
	<i>Aerobic+ball sport</i>	13 (6.5%)	20 (10%)	
	<i>Ball sport</i>	21 (10.5%)	52 (26%)	
	<i>Non</i>	17 (8.5%)	21 (10.5%)	
	<i>Resistance training</i>	15 (7.5%)	10 (5%)	
	<i>Walking</i>	102 (51%)	8 (4%)	
Do you find the time for exercising?	<i>Never</i>	42 (21%)	20 (10%)	<0.001
	<i>Rarely</i>	72 (36%)	51 (25.5%)	
	<i>Sometimes</i>	74 (37%)	53 (26.5%)	
	<i>Always</i>	12 (6%)	76 (38%)	
What is the total time that you spend in walking daily?	<i>10_20 min</i>	115 (57.5%)	104 (52%)	0.69
	<i>30_40 min</i>	68 (34%)	74 (37%)	
	<i>>50</i>	12(6%)	15(7.5%)	
	<i>Nothings</i>	5 (2.5%)	7 (3.5%)	

P-value ≤ 0.05 (significant).

An adequate sleep is positively associated with health-related behaviors while lack of sleep might be a major public health problem due to their associated with several health problems. Results of this study illustrated a significant difference between study groups and the time of go to bed. Generally, concerning sleeping habits, medical students showed a significant difference in the sleeping time compared to non-medical students. About [43%] of medical students go to bed from 11pm-1am, while [54%] of nonmedical students go to bed from 1-3 am. On the other hand [57%] of the medical students were go to bed in same time every day while [44%] of nonmedical students reporting same time. [57.5%] of medical students have 4-6 hours of sleeping while [53.5%] of nonmedical students have 4-6 hours of sleeping. [55.5%] of medical students have enough sleep duration while [65%] of nonmedical students have enough sleep duration. [45.5%] of medical students have nap during daytime while [65%] for nonmedical students. No further significant difference was found as present in table 3.4.

Table 3.4: Comparisons of answers between students of medical and other colleges for sleeping habit questions.

Variables		College Group		P-value
		Medical	Non-Medical	
Time go to bed	<i><11p.m</i>	22 (10.5%)	13 (6.5%)	<0.001
	<i>11-1</i>	92 (43.8%)	49 (24.5%)	
	<i>1-3 a.m.</i>	75 (35.7%)	108 (54%)	
	<i>After 3 a.m.</i>	21 (10%)	30 (15%)	
Go to bed in Same time everyday	<i>Never</i>	26 (13%)	36 (18%)	0.003
	<i>Rarely</i>	18 (9%)	40 (20%)	
	<i>Sometimes</i>	114 (57%)	88 (44%)	
	<i>Always</i>	42 (21%)	36 (18%)	
Hours of sleep	<i>4-6hrs</i>	115 (57.5%)	107 (53.5%)	0.002
	<i>7-8hrs</i>	79 (39.5%)	68 (34%)	
	<i>9-10hrs</i>	6 (3%)	15 (7.5%)	
	<i>More than 10</i>	0 (0%)	10 (5%)	
Do you think your sleep duration is enough?	<i>No</i>	89 (44.5%)	70 (35%)	0.033
	<i>Yes</i>	111 (55.5%)	130 (65%)	
Nap during Daytime	<i>Never</i>	36 (18%)	14 (7%)	0.006
	<i>Rarely</i>	31 (15.5%)	28 (14%)	
	<i>Sometimes</i>	91 (45.5%)	102 (51%)	
	<i>Always</i>	42 (21%)	56 (28%)	
Relation sleep	<i>No</i>	26 (13%)	32 (16%)	0.48

and activity next day	<i>Yes</i>	174 (87%)	168 (84%)	
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P-value \leq 0.05 (significant).

There was a significant difference between college groups and smocking, [12%] of medical students are smoking, while [25.5%] of nonmedical students are smoking. [31%] of medical students were reported to be active and passive smoker in the same time compare to [60%] of the nonmedical students. On the other hand, [58.3%] of the medical students were reporting a bad experience side effects of smocking compared to [27.5%] of nonmedical students. No further significant difference was found as present in table 3.5.

Table 3.5: Comparisons of answers between students of medical and other colleges for smoking related questions.

Variables		College Group		P-value
		Medical	Non-Medical	
Do you smoking	<i>No</i>	176 (88%)	149 (74.5%)	0.001
	<i>yes</i>	24 (12%)	51 (25.5%)	
Passive smoking	<i>No</i>	138 (69%)	80 (40%)	<0.001
	<i>Yes</i>	62 (31%)	120 (60%)	
Smoking Duration	<i><1years</i>	2 (8.3%)	2 (3.9%)	0.43
	<i>>2years</i>	15 (62.5%)	39 (76.5%)	
	<i>1-2years</i>	7 (29.2%)	10 (19.6%)	
Reasons for Smoking	<i>Friends</i>	6 (25%)	17 (33.3%)	0.48
	<i>Relatives</i>	2 (8.3%)	5 (9.8%)	
	<i>Self esteem</i>	4 (16.7%)	13 (25.5%)	
	<i>Stress</i>	12 (50%)	16 (31.4%)	
Awareness	<i>No</i>	0 (0%)	6 (11.8%)	0.17
	<i>Yes</i>	24 (100%)	45 (88.2%)	
Experience bad effects	<i>No</i>	10 (41.7%)	37 (72.5%)	0.02
	<i>Yes</i>	14 (58.3%)	14 (27.5%)	
Quit smoking	<i>No</i>	4 (16.7%)	15 (29.4%)	0.27
	<i>Yes</i>	20 (83.3%)	36 (70.6%)	

Chapter Four

Discussion

Discussion

In the context of a healthy lifestyle, it was reported that nutrition plays an important role in the development of young people eating behavioural patterns developed as adolescents and young adults influence long-term behaviour and have a great impact on adult life ⁽⁴⁹⁾.

Eating habits are a major concern with regard to the health status of University students. The current study found more than half of the students have the normal body weight [61.35%], while [27.43%] were overweight and only [4.5%] of them reported to be obese. Medical students even though being aware of the importance of well-balanced nutrition do tend to have laxity in practicing it themselves leading to poor nutrition.

The findings of these results were similar with another studies conducted in other Middle East and even in some Western countries. Yahia et al., made a study in Lebanon and found the prevalence of overweight and obesity were 37.5% and 12.5% among the male college students ⁽⁵⁰⁾. In Kuwait the overweight and obesity prevalence were found to be 32% and 8.9% respectively, whereas in the United States and United Arab Emirates the prevalence of overweight and obesity were 35% among the college students ⁽⁵¹⁾.

In this study, there was a significant difference between medical groups and non-medical about the breakfast consideration as an important meal. Medical student (61%) and non-medical student (35%).

This was consistent with study reported by Smith et al who indicated that ignore breakfast main component is a risk factor for obesity, high cholesterol and diabetes ⁽⁵²⁾. Also Moy et al. indicated that medical students were considered the breakfast as an important meal ⁽⁵³⁾.

Also, there was a significant association between medical and non-medical groups about taking a cup of milk daily, results were indicated that medical students were

take a cup of milk daily always more than nonmedical students. Results indicated that [54%] of medical students were drinking a cup of milk daily while [47%] of nonmedical students confirmed the daily consumption of milk. These results were consistent with many finding of Kocic & Lorga who stated that the general population and the nonmedical students, the medical student population are more prone to eat healthier, to have more knowledge about nutrition, and to carefully select their food products; moreover, they are more prone to give up unhealthy behaviours ^{(54),(55)}.

In the thesis the daily percentage of vegetable consumption recorded significant association among college groups, who were having daily vegetable in their meals (81.5%) more than nonmedical students (74%). Although medical students had sufficient knowledge of healthy eating habits, it was found that they failed to apply this knowledge into practice. These results were consistent with another study done by Krešic et al., who confirmed that the diet of non-medical students from different countries is often classified as unhealthy, poor in fruit and vegetables, with irregular eating patterns and a high frequency of fast-food choices, which is of particular concern because the eating habits established in this period of life can have a considerable effect on people's long-term health ⁽⁵⁶⁾.

Also it is consistent with a study examining the university of nonmedical students in the United Arab Emirates by Al-Nakeeb et. al . who found lower than recommended consumption of fruits and vegetables and a higher intake of dairy products and meat, compared to other countries in the region ⁽⁵⁷⁾.

On the other hand, eating meat was significantly ($p < 0.05$) more common on weekly basis in medical students groups than nonmedical students. That was consistent with another study done by Olatona et al., who reported that meat was more commonly consumed than fish ⁽⁵⁸⁾.

This study also demonstrated a significant association between the college groups in the fast food as a dietary habits and life style, the prevalence of the fast food was much lower in non- medical students than in medical students.

Results were similar to the study conducted by El-Gilany et al., in the Faculty of Medicine, Mansoura University, Egypt which showed that two-thirds of the total medical students included in the study consumed fast food regularly ⁽⁵⁹⁾.

The present study evaluated the level of physical activity (PA) among medical students, which was higher compared to non-medical students. [51%] of medical students used to have exercise and doing sport activity such as daily walking.

Results were consistent with previous studies done by Wattanapisit et al., who showed medical students that had more participation in physical activity than the general populations, and more than two-thirds of medical students met the recommended levels of physical activity ⁽⁶⁰⁾. Similar study by Richards et al., found that first year medical students were more active than final year students, and male medical students were more active than female students. But non-medical student have more time than medical student ⁽⁶¹⁾.

Adequate sleep is positively associated with health-related behavior while lack of sleep might be a major public health problem due to its association with several health problems. Results of this study illustrated a significant association between study groups in time to go to bed , medical students sleep earlier than non-medical student (11 pm – 1 am), Going to bed in the same time every day and hours of sleep duration. Medical students have much better bed time than nonmedical students. Sleep duration is adequate and nap during daytime for non-medical student more than medical student. Results were consistent with another studies by Alotaibi et al. who have been carried out on the topic of sleeping and napping ⁽⁶²⁾⁽⁶³⁾.

The significant association was consistent with another study for Giri et al., who stated that good quality of sleep and adequate amount are important in order to have better cognitive performance ⁽⁶⁴⁾.

Inadequate and irregular sleep time among students might be due to multiple reasons; some are physiologic and others are behavioural. Hershner et al., reported that the behavioural components may be particularly problematic. Other reason might be due to highly consumption of Caffeine which may act on gamma-aminobutyric acid neurons of the posterior hypothalamus to suppress sleep-promoting pathways ⁽⁶⁵⁾. The net effect is that caffeine increases alertness, and decreases sleepiness. Also, energy drinks which become increasingly popular and (34%) of (18–24) year-olds are consumed regularly. The majority (67%) of users consumed energy drinks to help compensate for insufficient sleep as reported by Hershner et al ⁽⁶⁶⁾.

Furthermore, in case of non-medical students, inadequate sleep hygiene also encompasses the use of technology prior to bed. Relevant data must be extrapolated from literature on adolescents, as few studies have focused on college students. It has been reported that adults aged 19–29 years old are heavy users of smart devices prior to bed: 67% use cell phones, 43% music devices, 60% computers, and 18% video games. The majority (51%) report rarely getting a good night's sleep and often wake unrefreshed ⁽⁶⁷⁾.

Frequent use of cell phones around bedtime is associated with difficulties falling asleep, repeated awakenings, or waking up too early ⁽⁶⁸⁾. All these factors and many other might have substantial impacts on the sleeping, learning, and health of the students.

This study was also investigated the smoking state, medical students showed less smoking percent than nonmedical students. About one third of medical students were reported to be active and passive smoker in the same time compare to two

third of the nonmedical students. On the other hand, WHO was indicated that more than half of the medical students were aware about a bad experience side effects of smoking compared to only one third of nonmedical students ⁽⁶⁹⁾.

Medical student have more knowledge about side effect of smoking than non-medical student.

This was consistent with another study who reported generally smoking among the medical students was not very common, study findings about the current smoking status was similar with the Global Adult Tobacco Survey ⁽⁶⁹⁾.

Although the regional data are limited, the reported prevalence of smoking among medical students in the Middle East ranges from (15- 35%) ⁽⁷⁰⁾.

Another study revealed that the risk of tobacco consumption increases, Unfortunately, cigarette smoking, and water pipe smoking frequently co-occur, as students' progress through their studies, probably due to increased stress. This hypothesis is supported by our findings, that stress was the most common reason to practice this habit as confirmed by Al-Haqwi et al ⁽⁷¹⁾.

Also, other common reason given for adopting smoking behaviour among medical student might be the influence of friends or peer effecting. Since many studies such as Al-Turki et al., revealed that most smokers started the habit due to the influence of friends ⁽⁷²⁾.

On the other hand, the effect of smoking parents as role models on their offspring is also a major influence in the initiation of smoking habit among adolescents, Various researchers such in Mony et al. suggested that smoking habits of parents may be a very important reason in the influence, whether a medical student smokes or not⁽⁷³⁾.

Chapter Five

Conclusion and Recommendation

5. Conclusion and Recommendation

5.1 Conclusion: In our research, we discovered that although medical students had a greater level of understanding of dietary and lifestyle behaviors, it was not represented in their practices, which needed to be addressed.

5.2 Recommendation:

- A mitigation to bridge the gap between the knowledge and the effective practice of it among the students is necessary and demand of the time.
- It is advised that the institution create a multidisciplinary team with experience in health promotion, including nutrition and exercise programs, in order to increase awareness among university students.

References

- 1- Al-Shehri HM, Al-Qahtani AM, Shaikh IA, Hassan MA, Al-Qahtani NS, Al-Qahtani AM, et al. Assessment of lifestyle and eating habits among undergraduate students in Najran University, Najran, Saudi Arabia. *International Journal of Medical Science and Public Health*. 2017;6(3):638-47.
- 2- Al-Qahtani MH. Dietary habits of Saudi medical students at University of Dammam. *International journal of health sciences*. 2016;10(3):353.
- 3- Abraham S, Noriega BR, Shin JY. College students eating habits and knowledge of nutritional requirements. *Journal of Nutrition and Human Health*. 2018;2(1).
- 4- Worsley A. Nutrition knowledge and food consumption: can nutrition knowledge change food behaviour? *Asia Pacific journal of clinical nutrition*. 2002;11:S579-S85.
- 5- Ul Haq I, Mariyam Z, Li M, Huang X, Jiang P, Zeb F, et al. A comparative study of nutritional status, knowledge attitude and practices (KAP) and dietary intake between international and Chinese students in Nanjing, China. *International journal of environmental research and public health*. 2018;15(9):1910.
- 6- Green L, Kreuter M. *The precede–proceed model. Health promotion planning: an educational approach* 3rd ed Mountain View (CA): Mayfield Publishing Company. 1999:32-43.
- 7- Alissa EM, Alsawadi H, Zedan A, Alqarni D, Bakry M, Hli NB. Knowledge, attitude and practice of dietary and lifestyle habits among medical students in King Abdulaziz University, Saudi Arabia. *International journal of nutrition and food sciences*. 2015;4(6):650-5.
- 8- O'Dea JA, Abraham S. Knowledge, beliefs, attitudes, and behaviors related to weight control, eating disorders, and body image in Australian trainee home economics and physical education teachers. *Journal of Nutrition Education*. 2001;33(6):332-40.
- 9- Sakamaki R, Toyama K, Amamoto R, Liu C-J, Shinfuku N. Nutritional knowledge, food habits and health attitude of Chinese university students—a cross sectional study—. *Nutrition journal*. 2005;4(1):1-5.
- 10- Wardle J, Parmenter K, Waller J. Nutrition knowledge and food intake. *Appetite*. 2000;34(3):269-75.
- 11- Janz NK, Becker MH. The health belief model: A decade later. *Health education quarterly*. 1984;11(1):1-47.
- 12- Ali A, Al Naabi FM, Al-Hakamani HSM. Assessment of Nutritional Knowledge, Dietary Habits, Nutrient Intake and Nutritional Status of Omani University Students. *Canadian Journal of Clinical Nutrition*. 2020.

- 13- Kabir A, Miah S, Islam A. Factors influencing eating behavior and dietary intake among resident students in a public university in Bangladesh: A qualitative study. *PloS one*. 2018;13(6):e0198801.
- 14- El Ansari W, Suominen S, Samara A. Eating habits and dietary intake: is adherence to dietary guidelines associated with importance of healthy eating among undergraduate university students in Finland? *Central European journal of public health*. 2015;23(4):306-13.
- 15- Papadaki A, Hondros G, Scott JA, Kapsokefalou M. Eating habits of university students living at, or away from home in Greece. *Appetite*. 2007;49(1):169-76.
- 16- Yun TC, Ahmad SR, Quee DKS. Dietary habits and lifestyle practices among university students in Universiti Brunei Darussalam. *The Malaysian journal of medical sciences: MJMS*. 2018;25(3):56.
- 17- Al-Nuaim AA, Bamgboye EA, Al-Rubeaan KA, Al-Mazrou Y. Overweight and obesity in Saudi Arabian adult population, role of sociodemographic variables. *Journal of community health*. 1997;22(3):211-23.
- 18- Abdelhafez AI, Akhter F, Alsultan AA, Jalal SM, Ali A. Dietary practices and barriers to adherence to healthy eating among King Faisal University students. *International Journal of Environmental Research and Public Health*. 2020;17(23):8945.
- 19- Deliens T, Clarys P, De Bourdeaudhuij I, Deforche B. Determinants of eating behaviour in university students: a qualitative study using focus group discussions. *BMC public health*. 2014;14(1):1-12.
- 20- Liu X, Chen H, Zhou Q, Zhang H, Asawasirisap P, Kearney J. Knowledge, attitude and practices (KAP) towards diet and health among international students in Dublin: a cross-sectional study. *International Journal of Environmental Research and Public Health*. 2020;17(9):3182.
- 21- Organization WH. Healthy diet. Fact sheet no. 394. World Health Organization, Geneva, Switzerland. 2015.
- 22- Organization WH. Guideline: sugars intake for adults and children: World Health Organization; 2015.
- 23- Organization WH. Global accelerated action for the health of adolescents (AA-HA!): guidance to support country implementation. 2017.
- 24- Lock K, Pomerleau J, Causer L, Altmann DR, McKee M. The global burden of disease attributable to low consumption of fruit and vegetables: implications for the global strategy on diet. *Bulletin of the World health Organization*. 2005;83(2):100-8.
- 25- Bull FC, Al-Ansari SS, Biddle S, Borodulin K, Buman MP, Cardon G, et al. World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *British journal of sports medicine*. 2020;54(24):1451-62.

- 26- Krešić G, Kendel Jovanović G, Pavičić Žeželj S, Cvijanović O, Ivezić G. The effect of nutrition knowledge on dietary intake among Croatian university students. *Collegium antropologicum*. 2009;33(4):1047-56.
- 27- Tanton J, Dodd LJ, Woodfield L, Mabhala M. Eating behaviours of British university students: A cluster analysis on a neglected issue. *Advances in preventive medicine*. 2015;2015.
- 28- Ganasegeran K, Al-Dubai SA, Qureshi AM, Al-Abed A-AA, Am R, Aljunid SM. Social and psychological factors affecting eating habits among university students in a Malaysian medical school: a cross-sectional study. *Nutrition journal*. 2012;11(1):1-7.
- 29- Williams SL, Vandelanotte C, Irwin C, Bellissimo N, Heidke P, Saluja S, et al. Association between dietary patterns and sociodemographics: A cross-sectional study of Australian nursing students. *Nursing & health sciences*. 2020;22(1):38-48.
- 30- Surani AA, Zahid S, Surani A, Ali S, Mubeen M, Khan RH. Sleep quality among medical students of Karachi, Pakistan. *J Pak Med Assoc*. 2015;65(4):380-2.
- 31- Aabid A, Muhammad Bilal M, Kanwal S, Amanda B, Mulazim Hussain B. Effects of different sleeping patterns on academic performance in medical school students. *Natural Science*. 2013;2013.
- 32- Quick V, Shoff S, Lohse B, White A, Horacek T, Greene G. Relationships of eating competence, sleep behaviors and quality, and overweight status among college students. *Eating behaviors*. 2015;19:15-9.
- 33- NOJOURMI M, Ghalehbandi M, KAFASHI S. Sleep pattern in medical students and residents. 2009.
- 34- Ford D, Kalnelx) w O B. Epidemiologic study of sleep dis ttrbano~ psychiatric disorders: an opportunity for prevention *J 龢*. 1989;262:1479-84.
- 35- Huen L-LE, Chan T-WG, Yu W-MM, Wing Y-K. Do medical students in Hong Kong have enough sleep? *Sleep and Biological Rhythms*. 2007;5(3):226-30.
- 36- GHOREYSHI SAA, Aghajani A. Sleep quality in Zanjan university medical students. 2008.
- 37- Gremeaux V, Gayda M, Lepers R, Sosner P, Juneau M, Nigam A. Exercise and longevity. *Maturitas*. 2012;73(4):312-7.
- 38- Abazajian KN, Adelman-McCarthy JK, Agüeros MA, Allam SS, Prieto CA, An D, et al. The seventh data release of the Sloan Digital Sky Survey. *The Astrophysical Journal Supplement Series*. 2009;182(2):543.
- 39- Martinez P, Thanasoula M, Carlos AR, Gómez-López G, Tejera AM, Schoeftner S, et al. Mammalian Rap1 controls telomere function and gene

- expression through binding to telomeric and extratelomeric sites. *Nature cell biology*. 2010;12(8):768-80.
- 40- Chao AM, White MA, Grilo CM, Sinha R. Examining the effects of cigarette smoking on food cravings and intake, depressive symptoms, and stress. *Eating behaviors*. 2017;24:61-5.
- 41- Moradi-Lakeh M, El Bcheraoui C, Afshin A, Daoud F, AlMazroa MA, Al Saeedi M, et al. Diet in Saudi Arabia: findings from a nationally representative survey. *Public health nutrition*. 2017;20(6):1075-81.
- 42- Ariake M, Shinada K, Endo K, Kondo K, Yoshida N, Kawaguchi Y. The relationship among eating habits, lifestyles, and oral health status of students. *Kokubyo Gakkai zasshi The Journal of the Stomatological Society, Japan*. 2002;69(4):290-5.
- 43- Carter AO, Elzubeir M, Abdulrazzaq YM, Revel AD, Townsend A. Health and lifestyle needs assessment of medical students in the United Arab Emirates. *Medical Teacher*. 2003;25(5):492-6.
- 44- Troyer D, Ullrich IH, Yeater RA, Hopewell R. Physical activity and condition, dietary habits, and serum lipids in second-year medical students. *Journal of the American College of Nutrition*. 1990;9(4):303-7.
- 45- Nnanyelugo D, Okeke E. Food habits and nutrient intakes of Nigerian University students in traditional halls of residence. *Journal of the American College of Nutrition*. 1987;6(5):369-74.
- 46- Sajwani RA, Shoukat S, Raza R, Shiekh MM, Rashid Q, Siddique MS, et al. Knowledge and practice of healthy lifestyle and dietary habits in medical and non-medical students of Karachi, Pakistan. *Journal of the Pakistan Medical Association*. 2009;59(9):650.
- 47- Al-Rethaiaa AS, Fahmy A-EA, Al-Shwaiyat NM. Obesity and eating habits among college students in Saudi Arabia: a cross sectional study. *Nutrition journal*. 2010;9(1):1-10.
- 48- Von Bothmer MI, Fridlund B. Gender differences in health habits and in motivation for a healthy lifestyle among Swedish university students. *Nursing & health sciences*. 2005;7(2):107-18.
- 49- Hamulka, J.; Wadolowska, L.; Hoffmann, M.; Kowalkowska, J.; Gutkowska, K. Effect of an Education Program on Nutrition Knowledge, Attitudes toward Nutrition, Diet Quality, Lifestyle, and Body Composition in Polish Teenagers. *The ABC of Healthy Eating Proje*
- 50- Yahia N, Achkar A, Abdallah A, Rizk S. Eating habits and obesity among Lebanese university students. *Nutr J*. 2008 Oct 30 and 7:32.

- 51- Musaiger AO, Lloyd OL, Al-Neyadi SM, Bener AB. Lifestyle factors associated with obesity among male university students in the United Arab Emirates. *Nutr Food Sci.* 2003,33(4):145-7. 2003.
- 52- Smith KJ, Gall SL, McNaughton SA, Bizzard L, Dwyer T, Venn AJ. Skipping breakfast: longitudinal associations with cardiometabolic risk factors in the Childhood Determinants of Adult Health Study. *Am J Clin Nutr.* 2010 and 92:1316–25. 2010.
- 53- Moy F, Johari S, Ismail Y, Mahad R, Tie F, Wan ismail WA. Breakfast skipping and its associated factors among undergraduates in a public university in Kuala Lumpur. *Malays J Nutr.* 2009 and 15(2):165–174.
- 54- Tanaka M, Mizuno K, Fukuda S, Shigihara Y, Watanabe Y. Relationships between dietary habits and the prevalence of fatigue in medical students. *Nutrition.* 2008 and 24(10):985–989.
- 55- Kokic, I.S., Znika, M. and Brumnic, V. Physical activity, health-related quality of life and musculoskeletal pain among students of physiotherapy and social sciences in Eastern Croatia – Cross-sectional survey. *Ann. Agric. Environ. Med.* 2019, 26, 182–190.
- 56- Iorga, M.; Popovici, L.; Muraru, I.D.; Alwan, S.; Ioan, B.G. Dietary habits and health-related behaviours among medical dentistry students-a cross-sectional study. *Rom. J. Oral Rehabil.* 2018, 10, 32–40.
- 57- Krešić, G.; Kendel Jovanović, G.; Pavićić Žeželj, S.; Cvijanović, O.; Ivezić, G. The effect of nutrition knowledge on dietary intake among Croatian university students. *Coll. Antropol.* 2009, 33, 1047–1056.
- 58- Al-Nakeeb Y, Lyons M, Dodd LJ, Al-Nuaim A. An investigation into the lifestyle, health habits and risk factors of young adults. *Int J Environ Res Public Health.* 2015 and *ijerph120404380.*, 12(4):4380–4394. doi:10.3390/. 2015.
- 59- F. A. Olatona, O. O. Onabanjo, R. N. Ugbaja,, K. E. Nnoaham4 and D. A. Adelekan., Dietary habits and metabolic risk factors for non-communicable

- diseases in a university undergraduate population. Olatona et al. *Journal of Health, Population and Nutrition*.
- 60- El-Gilany AH, Abdel-Hady DM, El Damanawy R. Consumption and knowledge of fast/junk foods among medical students, Mansoura university, Egypt. *TAF Prev Med Bull*. 2016 and 15:440–5.
- 61- Wattanapisit A, Gaensan T, Anothaisintawee T, eds. Prevalence of physical activity and associated factors of medium and high activity among medical students at Ramathibodi Hospital. *The 6th International Conference on Sport and Exercise Science 2015*. 2015.
- 62- Lahl O. An ultra short episode of sleep is sufficient to promote declarative memory performance. *J Sleep Res*. 2008, 17: 3-10.
- 63- Alotaibi, A.D., Alosaimi, F.M., Alajlan, A.A. and Abdulrahman, K.A.B., 2020. The relationship between sleep quality, stress, and academic performance among medical students. *Journal of family & community medicine*, 27(1), p.23.
- 64- PA Giri, MP Baviskar, and DB Phalke . Study of Sleep Habits and Sleep Problems Among Medical Students of Pravara Institute of Medical Sciences Loni, Western Maharashtra, India. *Annals of Medical and Health Sciences Research*. 2013 | Vol 3(1).
- 65- Hershner SD, Chervin RD. Causes and consequences of sleepiness among college students. *Nat Sci Sleep*. 2014 Jun 23 and 6:73-84. 2005.
- 66- Malinauskas BM, Aeby VG, Overton RF, Carpenter-Aeby T, Barber-Heidal K. A survey of energy drink consumption patterns among college students. *Nutr J*. 2007 and 6:35. 2007.
- 67- National Sleep Foundation . *Sleep in America: Technology Use and Sleep*. Arlington, VA: National Sleep Foundation and 2011. 2011.
- 68- Thomée S, Eklöf M, et al., Prevalence of perceived stress, symptoms of depression and sleep disturbances in relation to information and communication technology (ICT) use among young adults., *Comput Human Behav*. 2007 and 23(3):1300–1321. 2007.

- 69- Organization WH, 2009. Global adult tobacco survey: Bangladesh Report 2009. WHO Regional Office for South-East Asia. 2009.
- 70- <http://www.who.int/tobacco/en/>, World Health Organization. Tobacco Free Initiative)TFI(. [Updated 2009. Accessed 2010 September 15]. Available from URL:. 2009.
- 71- Al-Haqwi AI, Tamim H, Asery A. Knowledge, attitude and practice of tobacco smoking by medical students in Riyadh, Saudi Arabia. *Ann Thorac Med* 2010 and 145-148., 5:. 2010.
- 72- 2006, Al-Turki YA. Smoking habits among medical students in Central Saudi Arabia. *Saudi Med J* and 700-703., 27:. 2006.
- 73- Mony PK, John P, Jayakumar S. Tobacco use habits and beliefs among undergraduate medical and nursing students of two cities in southern India. *Natl Med J India* 2010 and 340-343., 23:. 2010.

Appendix

المخلص

الخلفية: يتأثر النجاح الأكاديمي في المدرسة والتعليم العالي بالصحة. لذلك ، في سياق الجامعات أو الكليات ، يستلزم تشجيع التعلم الفعال تشجيع صحة ورفاهية جميع المشاركين. جزء كبير من الشباب هم من الطلاب. عادة ما يبدأون فترة ديناميكية من التكيف مع مستوى استقلالهم الجديد عن والديهم ، والذي يتميز بتغيرات سريعة ومتصلة في أجسادهم وعقولهم وعلاقاتهم الاجتماعية. ، كان الهدف الأساسي من الدراسة هو تقييم العادات الغذائية لطلاب الطب ، ومقارنة طريقة تناولهم للطعام مع الطلاب غير الطبيين ، ومحاولة تحديد المتغيرات التي ساهمت في عادات الأكل السيئة للطلاب.

الطريقة: أجريت هذه الدراسة على مدى 6 أشهر (أبريل 2022 - سبتمبر 2022) في جامعة كربلاء مجموعتين طبي وغير طبي. أجريت هذه الدراسة بطريقة مقطعية. تمت الموافقة على هذه الدراسة من قبل كلية الطب جامعة كربلاء. أُعطي طلاب الطب وغير الطبي في جامعة كربلاء استبيانًا مُعدًا سلفًا مُدارًا ذاتيًا. يتكون الاستبيان من ثلاثة أقسام. في القسم الأول ، تم تضمين المعلومات الديموغرافية لتقييم الوضع الاجتماعي والاقتصادي للمشاركين. احتوى القسم الثاني على أسئلة حول النظام الغذائي والتمارين الرياضية والتدخين وعادات النوم. تم توزيع الاستبيان عن طريق استبيان ورقي مباشر بموافقة مستنيرة.

النتائج: بلغ عدد الطلاب الذين استجابوا للمسح 400 متوسط عمر [1.6 ± 21.8] سنة ، معظم الفئات العمرية للحالات 24 سنة ونصف [95%] ، [56.6%] من الحالات من الإناث و [43.4%] ذكور ، [84.5%] منهم غير متزوجين ، [97،8%] من الحالات ليس لديهم مرض مزمن ، [19.2%] فقط مدخنون ، و [86%] من الحالات يعيشون مع أسرهم ، [37.4% ، 37.2%] من الحالات في العام الدراسي الرابع والثاني على التوالي. من بين طلاب الطب ، اعتبر [61%] من الطلاب أحيانًا وجبة الإفطار كوجبة مهمة ، وتمارين [51%] من طلاب الطب يمشون. عادة النوم ، وقت الذهاب للنوم [43%] من طلاب الطب يذهبون إلى الفراش من 11 مساءً إلى 1 صباحًا ، [12%] من طلاب الطب يدخنون

الخلاصة: في بحثنا ، اكتشفنا أنه على الرغم من أن طلاب الطب لديهم مستوى أعلى من فهم السلوكيات الغذائية وأنماط الحياة ، إلا أنه لم يتم تمثيله في ممارستهم ، الأمر الذي يحتاج إلى معالجة.



جمهورية العراق
وزارة التعليم العالي والبحث العلمي
جامعة كربلاء
كلية الطب
فرع طب الاسرة والمجتمع

مقارنة بين طلاب كليه الطب والكليات الاخرى بخصوص خصائص نمط الحياة في
جامعة كربلاء
رسالة دبلوم عالي

إلى مجلس كلية الطب/ فرع طب الاسرة والمجتمع/ جامعة كربلاء كجزء من متطلبات نيل درجة دبلوم عالي
في طب الاسره

من قبل

قمر جواد عبد الكريم

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