

Associated Factors of Adulthood Overweight/Obesity among Pharmacy Department Students in Al-Rafidain university College / Iraq

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Abstract

Youth people overweight or obesity has become a main public health concern globally because of its adversarial health outcome and escalating prevalence. The aspects of disease conditions demonstrated during early older life commonly originate in youth stage of life. Iraq after wars is went through a transition where they started to go under-nutrition and co- exists with obesity. even though, there is a lack in documented information on college life and being overweight or obesity in Iraq. our study was carried out to documented for the first time the prevalence and associated factors of adulthood overweight or obesity among pharmacy department student in Alrafidain university college. Data were collected using a structured self-administered questionnaire from February 2019 to December 2019in grades 1–5 students of pharmacy department in Alrafidain university college

Height and weight measurements of 300 students were taken and BMI- for-age-sex was calculated using WHO AnthroPlus. Based on that, participants were divided to three groups as normal weight (BMI 20–25), overweight (BMI 26.0–30), and obese (BMI > 31.0).

Participates response rate is 81%. Age of students take a part in the current study was 21.43 ± 3.81 years. The category of students were 96 students (32%) overweight student 90(30%). The significant different $P < 0.05$ among groups were found of particular questions included eating outside their home.

Keywords: *Overweight/obesity, Body mass index, Prevalence, pharmacy college, students*

Introduction

Excessive fat accumulations or abnormal gathering fat are defined as overweight and obesity that may seriously effect today or tomorrow on health⁽¹⁾. In developed countries, It is known with common public nutritional disorder and recently obesity and overweight percentage among people is increasing even in developing countries as well⁽²⁾. Adverse metabolic changes can be produced from being overweight and obese. This change may be

including increases in blood pressure, high cholesterol levels, unfortunately increasing in insulin resistance⁽³⁾. unfavorable, overweight and obesity would elevate the risk of heart diseases, gall- bladder disease, brain and hart strokes, diabetes, atherosclerosis, many forms of cancers, especially breast cancer, and it also may be reason for hypertension and kidney failure. Based on that increase the rate of being obeys or overweight through childhood and adulthood become one of the most serious public health concerns in 21st century⁽⁴⁾.

An unhealthy nutrition is a main adaptable behavioral risk factors that would increase number of people who consider at obesity states. . However, in last decade a variety of dietary recommendations and several

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methods to prevent of obesity which have been projected, indications unpredictable and varies between procedures of dietary intake. Additionally, dietary guidelines play role in obesity- associated health disorders⁽⁵⁾.

Decrease physical activity eventually principal to overweight condition and obesity. it is also considered as risk factor for the global deaths. Regular physical activity would be obviously beneficial of set out across the lifespan. A several of pervious study strongly suggested, based on observation and experiment researches, that consistent Physical activity among young and adolescent people can provide instantaneous and on long-term welfares for physical health⁽⁶⁾.

Iraq has become one of the fastest growing economies counties after war. Augmented number of people lately who prefer urbanization life and increased income which increased access to fast food. In addition, technology developments and many different changes in the lifestyle in the last decades results in more sitting and rest which lead to more obesity. These alterations in the dietetic patterns and routines of life as coming of viewing of television for hours, using computer, browsing Internet, and calling through cell phones which have occasioned in rapid nutrition modification that in turn would be along with consequent rise in the overweight conditions and obesity among Iraq adolescent's and adult's^(7, 9).

Many different performances have been used to determine the obesity. Easiest and cheapest technique of weight and height for Body Mass Indexed (BMI) beside waist-hip ratio method, number of fat and size of cells, body thickness. Electrical technique which are more complex has been utilized such as magnetic resonance imaging, dual energy X-ray absorptiometry, bioelectrical impedance, ultrasound, air dislocation plethysmography, and calculated tomography. Each method from what has been mentioned above has limitations and differs in suitability subjected on the features of the population under the study and time likewise resources accessible. Due to its straightforwardness and ease of application, BMI is the most frequently used method of measurement which is known as reliable and desirable method to prompt the grade of overweight^(7, 10).

Studies of prevalence of obesity which are established depended on dietary habits, Physical activity,

and lifestyles among college students are infrequent. Therefore, the major aims of this manuscript were to explore the prevalence of obesity or/and overweight according to the BMI and investigate dietary habits, Physical activities, varies of lifestyles and demography among the pharmacy college students at the department of pharmacy, Alrafidain University college , Iraq.

Materials and Methods

Cross-sectional study include questionnaire constructed research procedure was approved by the Ethical Committee of the Alrafidain University college.

Our study was conducted from February 2019 to December 2019. all of requirement data were collected throughout an unidentified questionnaire which designed to be costume the necessities of the current study.

Questionnaires and instructions for answer and informed consent letter were personally handed to a suitably selected sample of 370 students. A total of 300 (response rate 81%) students enrolled in stage 1-5 grade of Bachelor of Pharmacy college students.

After the consent letter signed and an agreement of the participating students. participants genders, age, grade of study, height, and weight to get BMI were recorded.

Height was documented by cm, starting form heels to highest uppermost position on the head. Body weight was examine using a digital scale, considering all participants wearing light scrubs. The BMI was computed by dividing weight by height (kg/m^2).

After BMI calculated the participation divided to three groups based on the BMI value. normal weight (BMI 20-25), overweight (BMI 26.0-30), and obese (BMI > 31.0)

Questionnaire also included five different questions regarding the dietary habits. These questions involved question about total of meals, meals eaten outside home, snacks, and sweets consumption and amount of soft drinks per day.

Moreover, the questionnaires included five questions considering physical activity conducted by the participants. These questions encompassed about physical implementation per week, hours completed

during exercising, amount and sort the sports per week, and how many hours walking per day

In the third section of the questionnaire, the data regarding the participants were recorded. lifestyle routine questions also taken part of the questionnaire, which is included questions about hours sleep per day, how many hours spent study, time spent with friends outside, and time spent setting using technology screen. all the participants respond to all questions where no time limitation was recorded for them therefore there are no missing data.

Results

300 out 370 approached in college of pharmacy to fall the questioner were responds. prevalence of

obesity to reach 96 students (32%) overweight students 90(30%) and students who have normal weight were 114 (38%) this division was best on BMI values. Mean and Standard division of weight, high, calculated BMI and age showed in table 1.

All questions related to dietary habits illustrated in table 2. Even though results in Table 2 demonstrated that obese students were high in all the responds, there are a significant different just among students who eating outside home comparing with other groups included in the current study.

Lifestyle questions showed in table 3. Significant increase among college students who spend more time using internet or computer.

Table 1: Mean (M)and standard division (SD)of age, high, weight, BMI

Variables	M±SD
Age	23.43 ± 3.81
Weight	87 ± 12.16
High	179± 10.95
BMI	27.70± 6.43

Table 2: Explain the percentage of responds of the three groups about dietary questions

	Normal weight %	Overweight %	Obesity %
Having breakfast			
Never	2.5	2.1	4.7
Rarely	49.6	49.7	39.7
Sometimes	43.4	41.3	45.8
Every day	4.5	6.9	9.9
			P value =0.41
meals eaten outside			
Never	13.2	4.7	13.5
Rarely	58.9	59.6	35.2
Sometimes	25.4	33.3	25.6
Every day	2.5	2.4	7.7
			P value =0.63
Having fast food			
Never	14.3	19.8	12.1
Rarely	46	47.3	44.3
Sometimes	31	27.2	35.2

Cont... Table 2: Explain the percentage of responds of the three groups about dietary questions

Every day	8.7	5.7	8.4
			P value =0.85
Eating out home			
1	20.1	19.7	9.7
2	41.4	48.2	46.9
3	28.3	28.1	34.8
>4	10.2	4	8.6
			P value =0.041*
Eating snacks or sweets			
1	17.2	18.1	18.1
2	50.1	48.6	48.6
3	22.3	24.8	24.8
>4	10.4	8.5	8.5
			P value =0.29

Table 3: Explain the percentage of responds of the three groups about lifestyle questions

	Normal weight %	Overweight %	Obesity %
Doing something to lose weight			
eating heathier food	26.7	12.2	21.9
Watching portion sizes	51	55.2	39.2
Dieting on my own	18.9	26.1	31.1
Eat more vegetables	3.4	3.5	7.8
			P value =0.92
Sleeping hours per day			
<5	16.1	23.3	23.6
5-7	35.7	26.8	19.8
8-10	29.3	29.9	27.1
>10	18.9	20	29.5
			P value =0.37
Time (hours) of watching TV per day			
<1	28.1	9.3	19.1
1	33.7	8.6	27.8
2	29.8	28.1	20.5
>3	18.4	54	32.6
			P value =0.049

Cont... Table 3: Explain the percentage of responds of the three groups about lifestyle questions

Duration (hours) of mobile surfing			
<1	31.8	9.6	2.3
1	19.2	36.7	29.1
2	31.7	29.1	21.3
>3	35.3	24.6	47.3
			P value =0.91
Times browsing internet or using computer			
<1	11	35.1	15.3
1	61	52.4	59.2
2	21	16.2	23.6
>3	1.7	2.3	20.9
			P value =0.031

Discussion

Our study provides appropriate information about the prevalence of overweight and obesity among pharmacy college student and approve the correlation with their eat, drink, exercises and lifestyle. All required data was collected through survey for this purpose. 81% is satisfactory rate of response among questioner handled to students through class days.

High prevalence of overweight and mostly obese students in pharmacy collage reflects great thoughtful changes in behavioral patterns and social life, difficulties of this collage comparing to general community. prevalence of obese among these students would be related to nutritional habits that are irregular or improper quality such as eating more outside or eating junk food during library study time or living in students' special home or dormitories. The outcome of current study showed that percentage of eating higher than three meals or higher is increased among overweight students and obese. we also noticed that higher percentage of overweight and obese students who have more snacks and sweets which needs to be considering dietary education program among college students since it is ignored in our education system⁽¹⁰⁾.

Physical activity that are important to contribute in total daily energy spending and would help individuals

to have healthier body weight and configuration than inactive student⁽¹¹⁾. Elevate rate of cardiovascular disease, several types of cancer, diabetes could be produced from physical inactivity and unhealthy behaviors and diets, consequence global burden and more death in Arab countries⁽¹²⁾. popularity of physical inactivity and weight apprehension remain as major public health concern⁽¹³⁾. Results from current study demonstrated that there is no concern about weight and being overweight or obese among students participating. Most of overweight and obese students can be classified beyond to physical inactive compared to normal weight students. From table 3 the high percentage of overweight and oboes group students who do not have regular exercise, concern about time spend in exercise session, doing different sport to lose weight, and pay attention to walk daily in purpose for being at good weight comparing to normal weight students.

High stress with notable difficult tasks to personal welfare for students is considered as education at schools^(14, 15). Educational stress pronounces the occurrence and inference of study related stress and unhealthy habits among students and the negative impact on students' performance⁽¹⁶⁾.

Previous study conducted on Medicine college students proposed a several factors including large

course work, financial concerns, lack in sleep, academic pressure, dealing with patients suffering from different pain and patients facing deaths that are classified as main stressor factors that have negative effect on students^(17, 18). Other researches would give the reason for gaining weight to anxiety and emotional distress which produced highly during academic examination periods that lead eat unregularly and being inactive⁽¹⁵⁾.

Most of the students participate in the current study through the personal meeting were complaining lack of time is the main reason for not doing exercise. This result come along with the results of study conducted on dental students in Saudi Arabi. Laziness would be another reason for not do not exercise or there are no gyms available handy in the student's area⁽¹⁹⁾.

After last war in Iraq, it has undergone huge change in life behavior and style. Elevate the number of populations who urbanized, increase the income, as well as increase number of fast food restaurants everywhere, wide use of internet and technology which in turn increase students who are overweight or even obese. The new lifestyle with new Iraq becoming more and more inactive and energy outlay is condensed. Studied and dramatic social life that undoubtedly changed in the last two decades lead to negative influence on health.

Several of previous studies report that increase utilizing internet and computer cause increasing number of child and adults who suffer from overweight or obese. These results agreed with results from current study where we noticed increase college students who using more hours from internet or computer in way that are significantly correlated with their BMI. Expending hours of using internet or computer may be related to study requirement in pharmacy colleges and Whom work^(20, 21).

Conclusion

Results of our study come out with that incidence of overweight and obese is considerably high among pharmacy college students which need more concern, and this really alarmed need more attention. Pharmacy students do not care about watching their food or have physical activity and obese and overweigh students spend more time on internet and screens comparing to students who have normal weight. knowledge about

the consequences of overweight and obese should be increased. Avoid raise obese individuals among college students by increase the awareness of physical activity and healthy nutrient.

Ethical Clearance: The Research Ethical Committee at scientific research by ethical approval of both MOH and MOHSER in Iraq

Conflict of Interest: Non

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