Effect of Eating Habits on Obesity among Sample of University Students in Baghdad City, Iraq

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Abstract. Iraq experienced rapid socio-cultural changes that were associated major in food and eating habits. Change in eating practice and life style is viewed as fundamental factors of several diet-related disease. The purposes of present study was to depict the dietary and lifestyle habits among the students of medical health college in Baghdad city of Iraq by cross-sectional study which done between male and female of students with sample size about 250 subjects (50% male and 50% female) their age ranged between (18-25) years. The results of present study appear that skipping breakfast more likely in males (30.8%) compared to females (26%) and youth males are more impressed to eat fast food and take fast food than females although females prefer to take vegetable and fruits daily to have balanced food as well as low percentage of students 13.2% (8.4% males and 4.8% females) participating in sport and physical activity low percentage of students 2% suffered from obese compared to high percentage 20.4% of students suffered from overweight. It seems that the students of medical health have more knowledge about the efforts of eating habits and lifestyle on the health and have acceptable level of attitude on health and their appearances.

Keywords: Habits, Obesity, overweight, socio-cultural, Baghdad, Iraq

1. Introduction
Eating habits have been a major concern among university students as a determinant of health status. Poor eating habits are a major public health concern among young adults who experienced transition into university life, during which they are exposed to stress and lack of time [1]. Overweight and obesity are major public health problems and the most common nutritional disorders [2], therefore, both overall and abdominal obesity are associated with non-communicable chronic diseases such as type 2 diabetes, cardiovascular and cerebrar vascular diseases, digestive disorders, and cancer [3]. The Poor patterns life habits, such as unwell eating and inefficient physical, are the main factors to raise morbidity and mortality from chronic diseases such as obesity, hypertension, diabetes, heart disease, cancer, osteoporosis, mental health, dental diseases. The "World Health Organization (WHO)" has stated that obesity is a global health problem.[2,4]. The lack knowledge of healthy food choices these may affect
eating habits and nutritional status negatively and the changing ways of eating which were adopted by our younger generation can lead to increase in the burden of Diabetes, Dyslipidemias and Hypertension in future years. [5]. Several studies indicated that causes of obesity are multi factorial [6,7] these factors may include biological and non-biological factors such as heredity, age, gender, occupation, socio-economic level, physical inactivity, physiological agents and eating habits. Complications are either directly caused by obesity or indirectly through mechanisms sharing a common cause such as unhealthy diet or a sedentary behavior [8,9]. "The World Health Organization (WHO) classified the adults depending on the Body Mass Index (BMI) which measures weight in relation to height. If BMI scales from 18.5 up to 25, it signifies that a person has a normal weight. BMI from 25 up to 30 refers to overweight and BMI of 30 or higher refers to obesity"[10].

2. Methodology

1- The random sample was represented by 250 samples (students of medical health technology college \ Baghad.
2- This study was held from October 2015 to March 2016.
3- In selecting sample we considered the age, gender education level, and location of living.
4- In this study the data consist of public knowledge and perception about air pollution, source and type of pollutants in air, impact of those pollutants on the human health and the efforts to reduce air pollution in Baghdad city.
5- Statistical analysis: Frequency, percentage.
6- A structured self-administered questionnaire was used to obtain the information of present study about demographic factors, dietary behaviors, physical activity and inactivity patterns.

3. Results and Discussion

Demographic data of the 250 of students’ contributor in the study are present in (table 1) that showed about 50% was males and 50% were females.

| Age Groups | Gender | Total | P-value | C.S |
|------------|--------|-------|---------|-----|
| (18-19) years | Male 10 | Female 18 | 28 | |
| (20-21) years | % 4% | 7.2% | 11.2% | |
| (22-23) years | No 58 | 65 | 123 | |
| (24-25) years | % 23.2% | 26% | 49.2% | |
| (>25) years | No 45 | 36 | 81 | |
| College | % 18% | 14.4% | 32.4% | |
| Institute | % 24.4% | 25.5% | 49.5% | |
| Primary | No 61 | 63 | 124 | |
| Secondary | % 6% | 10.8% | 16.8% | |
| read and write | No 10 | 10 | 20 | |
| Illiterate | % 4% | 4% | 8% | |
| P 0.05 | No | 9 | 3 | 12 |
NS: no significant

The food consuming and fast food patterns of the students are shown in table 2. About 62.8% of them consume breakfast regularly. The males and females have the same percentage about 31.6 and there were no significant differences between them. The percentage of students which do not consume the breakfast about 56.8 % most of them were males 30.8%. On other hands the percentage of students which rarely eat the fast food between breakfast and lunch were 82 % most of them from males who had 42.2 %. As well as the proportion of students who had rarely eat between lunch and supper also in midnight represented 75.6 % and 71.6 % respectively most of them from males. This study indicates unhealthy dietary habits and life style. A similar tendency for skipping breakfast has been reported among Swedish[11] and Turkish [12] adolescents. For female, skipping breakfast may by connect in some way to feeding about body shape and it may also method of dieting. For males skipping breakfast may be lack of time [13] as well as the skipping of breakfast help in weight reduction which was a widely held belief among females but may be tend to consume greater amounts of food at lunch and thus gain weight as well as the present study showed that about 45.6 % of students eat vegetable and salad 3-4 times in a week and about 34.4 % consume the fruit daily most of them from female 26.4 % while male have 8 % only. And the highly significant differences between them.

Table (2): food consuming and fast food patterns of medical health technical college's students

| N=250 | Gender | Total | P-value | C.S |
|-------|--------|-------|---------|-----|
|       | Male   | Female|         |     |
| Do you take your meals regularly | Yes | % | 31.6% | 31.2% | 62.8% | 0.896 | P>0.05 (NS) |
|       | No     | %    | 18.4% | 18.8% | 37.2% |         |           |
| Do you take breakfast | Yes | % | 19.2% | 24.0% | 43.2% | 0.125 | P>0.05 (NS) |
|       | No     | %    | 30.8% | 26.0% | 56.8% |         |           |
| Snacking between breakfast and lunch | Daily | % | 3.6% | 4.8% | 8.4% |         |           |
|       | Rarely | %    | 42.4% | 39.6% | 82% |         |           |
|       | Never  | %    | 4.0% | 5.6% | 9.6% |         |           |
| Snacking between lunch and supper | Daily | % | 4% | 7.6% | 11.6% |         |           |
| Midnight fast food | Rarely | % | 39.2% | 36.4% | 75.6% |         |           |
|       | Never  | %    | 6.8% | 6% | 12.8% |         |           |
|       | Daily  | %    | 5.6% | 6.4% | 12% |         |           |
| Eating vegetables/salad | Rarely | % | 36.4% | 35.2% | 71.6% |         |           |
|       | Never  | %    | 8% | 8.4% | 16.4% |         |           |
|       | Daily  | %    | 11.2% | 21.2% | 32.4% |         |           |
|        | 4-3 time | % | 11.2% | 21.2% | 32.4% |         |           |
|                              | 1-2 time |       |       |
|------------------------------|----------|-------|-------|
|                              | No       | %     |       |
| Eating fruits                | 19       | 7.6%  | 12%   |
|                              | 11       | 4.4%  |       |
|                              | 30       |       |       |
| Rarely                       | 15       | 6%    | 11.6% |
|                              | 14       | 5.6%  |       |
|                              | 29       |       |       |
| Never                        | 0        | 0%    | 1%    |
|                              | 1        | 0.4%  |       |
|                              | 1        |       |       |
| Daily                        | 20       | 8%    | 34.4% |
|                              | 66       |       |       |
|                              | 86       |       |       |
| 4-3 time                     | 49       | 19.6% | 32.4% |
|                              | 32       | 12.8% |       |
|                              | 81       |       |       |
| Eating fast food             | 17       | 6.8%  | 13.6% |
| with sauce and ketchup       | 17       | 6.8%  |       |
|                              | 34       |       |       |
| Rarely                       | 27       | 10.8% | 16.4% |
|                              | 14       | 5.6%  |       |
|                              | 41       |       |       |
| Never                        | 6        | 2.4%  | 3.2%  |
|                              | 2        | 0.8%  |       |
|                              | 8        |       |       |
| Daily                        | 73       | 29.2% | 62.8% |
|                              | 84       | 33.6% |       |
|                              | 157      |       |       |
| How often do                 | 10       | 4.4%  | 8.8%  |
| you eat with                 | 12       | 4.8%  |       |
| friends and family           | 10       | 4%    |       |
|                              | 22       |       |       |
| Rarely                       | 1        | 0.4%  | 0.4%  |
|                              | 1        | 0%    |       |
|                              | 4        | 1.6%  | 2%    |
| Never                        | 11       | 4.4%  | 8.4%  |
|                              | 110      | 44%   | 89.2% |
|                              | 113      |       |       |
| Daily                        | 0        | 0%    | 1%    |
|                              | 1        | 0%    |       |
|                              | 5        |       |       |
| what types of               | 11       | 4.4%  | 8.4%  |
| food do you think you        | 12       | 4.4%  |       |
| should eat to have           | 10       | 4%    |       |
| a balanced nutrition         | 21       | 4.4%  | 13.2% |
|                              | 12       | 4.4%  |       |
|                              | 30       | 12%   | 17.6% |
| Frequency of                 | 27       | 8.4%  | 14.8% |
| participating sport/week     | 34       | 12%   | 17.6% |
|                              | 56       |       |       |
|                              | 90       |       |       |
|                              | 13       | 5.2%  | 18.4% |
|                              | 33       |       |       |
|                              | 46       |       |       |
Most fruits and vegetables is an important indicators of healthy diet and have low caloric content and rich in fiber and micronutrients and this result agree with study of Bahrain adolescents[14]. Studied on consuming of fruit and vegetable among children appear that some of the determinants that influence in consumption food are gender parental and home availability [15].

Fast food has become a prominent form of diet to adolescents over the world. Present study appear that the percentage of daily and 3-4 times in week eating snack with sauce and ketchup were 30.4% and 36.4 % respectively, no significant differences between males and females and are more likely to eat fast food and snack food regularly than male, the social cultural factors may influence the eating patterns and physical activity behavior of adolescents in many way, students of university are more likely to have unwell eating habits than others and the person of wealthy families are more likely to eat fast food and snack food orderly than those from poor families.

The family is a significant factor associated with reduced risk of obesity in girls, independent of mother’s education and other related factor, [16] found eating dinner with family significantly associated with healthy dietary intake pattern in US children and adolescent, at present study the percentage of students who prefer to eat with their friends and family which were 62.8 %, with no significant differences between males and females as soon as low percentage of students 2% who take the balanced food daily and about 89.9% take it at 1-2 times a week as well as the plurality of students believe that balanced diet may provide by eating meat; vegetables and other food in which about 1.6% males' students and 0.4% females students were agree that and disagree with another study, which healthful diet was classified as a diet that included more fruits and vegetables and less fat [17].

According to this results of this study indicated that low percentage of the students that participating sport daily or even rarely and the low percentage between females and males. As well as physical inactivity and sedentary living are become increasingly prevalent and have suggested as important factors contributing to global increase of obesity in many countries [18].

According to Body Mass Index (BMI) of current data (table 3) demonstrated that about 72.8 % had normal weight and about 20.4% of samples where above the normal weight samples where 2% where obese.

| Weight Status | Gender  | Total |
|---------------|---------|-------|
|               | Male    | Female|       |
| under weight  | No 6    | 6     | 12    |
|               | % 2.4%  | 2.4%  | 4.8%  |
| Normal        | No 85   | 97    | 182   |
|               | % 34%   | 38.8% | 72.8% |
| over weight   | No 30   | 21    | 51    |
|               | % 12.0% | 8.4%  | 20.4% |
| Obese         | No 4    | 1     | 5     |
|               | % 1.6%  | 0.4%  | 2.0%  |
| Total         | No 125  | 125   | 250   |
|               | % 50%   | 50%   | 100%  |
These results were consistent with the results of similar studies in Iranian male college students in which the overweight percentage about 7.9%. Our study showed that students have irregular males and most of them skip the breakfast as well as take fast food between the lunch and dinner daily with low percentage of them participating sport / week.

4. Conclusion

- Low percentage of student’s participation in physical activity and playing sports daily.
- Low percentage of students suffered from obese and over body weight compared with other countries
- Designed the educational programs about the important of balanced food and used them between the primary and secondary school students.
- Participating in physical and sport activity / week regularly to avoid the overweight and the risk disease of the over body weight and obesity.

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6. References

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