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Assessment Of Student's Habits Toward Obesity At Primary Schools In Al-Hilla City -Iraq

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Abstract

Obesity in children and adolescents is one of the most serious public health issues due to the consequences of future morbidity. Its prevalence has risen significantly in the majority of countries.

Objectives: To know the extent of this epidemic among our children, and to evaluate students' knowledge about the concept of obesity and to paint a real picture for primary school students in Hilla.

Methods: The study began in October by visiting a group of primary schools in the city of Hilla, and questionnaires were distributed to (224) male and female students, including demographic information for primary school students, in addition to measuring height and weight mainly with questions about the nature of food and drink they eat, the importance of exercising and the number of hours watching TV and the Internet.

Results: The results of the study in the city of Hilla showed that the children's weight was within the normal range, and that most of them exercised and ate fruits and vegetables in return, and drank soft drinks and fast food with a high rate of television watching, and the Internet, which all affect body weight

Conclusion: The results of the study showed that weight rates were normal for primary school students. On the other hand, the results showed some unhealthy practices for students, which may constitute the main cause for their obesity in the future .

Key words: Overweight, Obesity, Children of the Primary schools,Hilla

Introduction

Obesity: is defined by WHO as excess adipose tissue weight which causes a deficiency of the health (1), whilst excess weight means a height gain compared to an acceptable standard value (2).

Obesity is the excessive accumulation of adipose tissue to an extent that health is impaired [3]. Obesity is usually determined by using the body mass index (BMI). It is a complex condition, with serious social and psychological dimensions [4]. Overweight and   obesity are major risk factors for a number of chronic diseases, including diabetes, hypertension, and cardiovascular diseases [5], and several cancers such as endometrial and breast cancer [6,7,8, and9]. One of the most common method of classifying obesity is the body mass index (BMI), equal to body weight in kilogram (kg) divided by square meter in height (m2) (10). WHO considered overweight,30-34.9 class 1, 35-39.9 class 2,40, and more class, class 3 to normal BIM 18.5-24.9, 25-29.9 class 2.

Age and socio-economic groups affect obesity and threaten both the developed countries and the developing countries [11]. Especially in recent years, it has become a global public health problem. There are over a billion overweight adults worldwide, for example, with at least 300 million obese [12]. In many instances, death risks for people overweight and obese are closer (0.5–1.75) than normal-weight persons[13]. Obese infants are more likely to be at higher risk of heart disease, type 2 diabetes and cancer, stroke and osteoarthritis, and are also more likely to become obese adults (14). Increased risk of bones and joint problems for children and adolescents who become obese include lower back pain, lower mineral levels of the vertebral bone, slip capital femoral epiphysis (SCFE), Blount's illness and increased risk of fractures (15).

Measuring child obesity needs special attention because of their continued growth and gender differences in patterns of growth. For childhood obesity at age two and older, BMI is the most used method in epidemiological studies. 3 In infancy, BMI changes significantly at age (16) and is gender diverse (17).

Methodology

The study included primary school students within the city of Hilla in different schools. The information was taken from students aged between (11-12 years), male and female, who amounted to 224 students during the months of October and November of the year 2021 during this period, the visits were to 10 primary schools. Questionnaire that includes demographic information, the nature of the foods and drinks they consume, as well as weight and height, to determine the body mass index was distributed to students under investigation.

Analysis of statistics

The results are analyzed statistically by the analysis and use of the SPSS Program version 20 (Independent - Samples Test). Statistically significant was the P value < 0.05

Results

Table (1) Distribution of the students by their Demographic Characteristics n=224

Categories		Frequency	Percent%
Age	11 year	65	29.0
	12 year	159	71.0
	Total	224	100.0
Gender	Male	191	85.3
	Female	33	14.7
	Total	224	100.0
Class	Fifth primary	68	30.4
	Sixth primary	156	69.6
	Total	224	100.0
School	TahaBaqer girls School	17	7.6
	Maytham Al Tammar Mixed School	20	8.9
	TahaBaqer Boys School	33	14.7
	Western Boys School	41	18.3
	Al-Buhtri School	17	7.6
	The Map School	20	8.9
	Camille School	46	20.5
	Benghazi School	14	6.3
	TulKaram School	16	7.1
	Total	224	100.0
Living	Country side	42	18.8
	city	182	81.3
	Total	224	100.0
Education of the father	Can't Read Nor Write	9	4.0

	Primary School	39	17.4
	Intermediate School	55	24.6
	High School	50	22.3
	College	71	31.7
	Total	224	100.0
Education of the mother	Can't Read Nor Write	16	7.1
	Primary School	62	27.7
	Intermediate School	36	16.1
	High School	47	21.0
	College	63	28.1
	Total	224	100.0
Family history for diabetes	Yes	64	28.6
	No	160	71.4
	Total	224	100.0
	Yes	140	62.5
Do you practice sport	No	84	37.5
	Total	224	100.0

The results of the study in Table (1) showed that (71.0%) of the sample are within the registered age group (12) years, which is considered of high value among the participants. As for their genders, the results indicated that they are (85.3%) male versus (14.7%) females. Regarding housing, most of them live in cities (81.3%), while 24.6% of the participants had intermediate school as the educational level of the father.

It was also found that the level of education in the college recorded the highest percentage among the groups for each of the fathers and mothers of the sons, as it showed (31.7%).

(28.1%) respectively.

Table 2: Body Mass Index of Students'

		F	%
Body Mass Index	Under weight	73	32.6
	Ideal weight	122	54.5

	Over weight	17	7.6
	obese	12	5.3
	Total	224	100.0
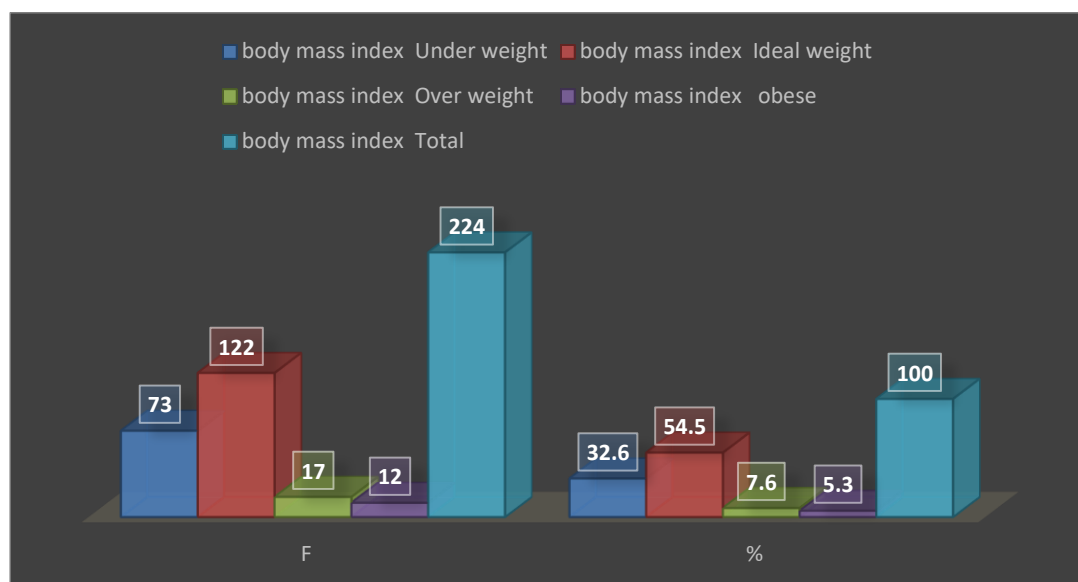
Figure (1) **Body Mass Index**

Table 3: Assessment of Students' Habits toward Obesity

	Scale	F	%	**M.S**	Assessment
How many hours do you watch TV during the week?	I don't watch	19	8.5	**2.84**	Moderate
	One hour	61	27.2		
	Two hours	80	35.7		
	More than two hours	64	28.6		
	Total	224	100.0		
How many do you watch NET during the week?	I don't watch	21	9.4	**2.83**	Moderate
	One hour a week	60	26.8		
	Two hours a week	80	35.7		
	More than two times a week	63	28.1		

	Total	224	100.0		
How often do you eat fruits and vegetables during the week ?	I don't eat	5	2.2	**3.52**	High
	Once a week	20	8.9		
	Two times a week	53	23.7		
	More than two times a week	146	65.2		
	Total	224	100.0		
How often do you eat sweets and chocolate during the week?	I don't eat	16	7.1	**3.06**	Moderate
	Once a week	48	21.4		
	Two times a week	67	29.9		
	More than two times a week	93	41.5		
	Total	224	100.0		
How many times do you eat potatoes during the week?	I don't eat	16	7.1	**3.31**	**High**
	Once a week	35	15.6		
	Two times a week	36	16.1		
	More than two times a week	137	61.2		
	Total	224	100.0		
How often do you eat fast food during the week?	I don't eat	50	22.3	**2.55**	Moderate
	Once a week	62	27.7		
	Two times a week	50	22.3		
	More than two times a week	62	27.7		
	Total	224	100.0		
How often do you drink soft drinks during the week ?	I don't drink	34	15.2	**2.76**	Moderate
	Once a week	55	24.6		
	Two times a week	65	29.0		
	More than two times a week	70	31.3		
	Total	224	100.0		

F= Frequency, %= Percentage, M.S. = Mean of score " Cut off point (0.75), very low (mean of score 1-1.75), low (mean of score 1.76-2.50), moderate (2.51-3.26), high (3.27-4,02)", Assess=Assessment

Discussion

The results of the study, when comparing the two sexes, showed that the number of boys is more than girls of 85.3%, 14.7% respectively. The differences between the sexes can be explained by the nature of the site, since the visited schools were single-sex male schools, female schools or mixed-sex schools. These demographic characteristics are similar to those of the cited studies (18, 19, 20). The results of the current study in Table (1) indicate that the majority of children are between the ages of (11-12), and most of them are in the fifth and sixth grades of primary school, where the demographic characteristics are identical to the study conducted by (21) and (22).

 When evaluating parents' education(table1), the educational level of the fathers who completed secondary education was higher than that of mothers, as well as the university education of fathers showed a greater percentage of 31.7%, while 28.1% of mothers had completed university education. This result agrees with several studies such as (23, 24).

The study also showed that the largest proportion lived in urban areas and this is consistent with a study of body mass index (BMI) for children who reported a higher prevalence of obesity in cities than in rural areas (25,26).

In the current study, the majority of children studied (54.5%) fall within the normal range

of weight while only 7.6% and 5.3% of them were overweight and obese, respectively. These results were consistent with those obtained from two other studies. The first study was conducted by Hassan et al., 2000 in the city of Ismailia which reported the prevalence of obesity, using the WHO classification, to be approximately similar to that of the current study (4.5%) (27). The other study wascarried out by Nour Eldin,2007 in Abu-KhalifaVillage-Ismailia and concluded that the prevalence of obesity among adolescents was 5% (28). The current results were also in agreement with those obtained by Fayad, 2006 in Cairo where the prevalence of obesity among studied subjects was 6.6% (29).

The study also showed the rate of weekly TV or Internet viewing, which amounted to (35.7%), and this indicates a negative impact on the number of children. Watching hours and using the Internet leads to the spread of obesity or weight gain, as watching TV and using the Internet are among the activities that negatively affect the health of the body, especially since the danger in that is not only watching, but also

what may be accompanied by drinking soft drinks, nuts and other unhealthy foods (30). This is consistent with several studies that have indicated that the longer you watch TV, the greater your risk of obesity (31). A study also showed that the number of hours watching television using the computer and the Internet is of great importance in influencing the prevalence of obesity (32).

The first objective of this study is to examine students' attitudes towards obesity, as the results showed that students have positive attitudes towards healthy lifestyles such as exercising more, especially in schools and parks, and their percentage was 62.5%, and eating healthy foods including fruits and vegetables 65.2%. On the other hand, students had a negative attitude towards unhealthy lifestyles such as playing video/computer or watching TV, eating sweet food more than once a week 41.5% or fast food 61.2% and soft drinks 31.3% more than once a week. These results are consistent with the previous study by Olds et al. [33] in Australia to assess attitudes towards obesity among parents and their children, as they believed that lifestyle was the main cause of obesity which is a serious health problem. Similarly, similar results were obtained byNjelekela study [34]. This explains the reasons why children gain weight with age, which is a big problem. Several studies have shown that increased intake of junk food and eating large portions of them are important factors associated with weight gain in children and adolescents (35). (36) also adds that one of the factors that contribute to the emergence of these complications of overweight and obesity is a diet that lacks fiber and antioxidants, but is rich in processed foods loaded with fats and added sugars.

Conclusion:

Obesity poses a major problem with age, especially for children in primary schools. School administrations and parents are advised to follow appropriate health and nutritional education programs for children to reduce weight gain and increase their awareness.

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