

Lifestyle and Its Relationship With the Weightiness Prevalent among Obese High School Students

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Received: 3 Apr. 2017, Revised: 27 May 2017; Accepted: 2 Jun. 2017

Published online: 1 Jul. 2017.

Abstract: We examine the effect of lifestyle on the prevalence of overweight and obesity among adolescents. A cross-sectional study was carried out in 7 secondary schools in the state of Mostaganem, including girls and boys whose ages range between 15 and 19. The total sample included was 98 adolescents 34 boys and 64 girls their average age ≈ 18 years. It is shown that family forecasts related to the financial condition are in first- line risks obesity relative to genetic factors and level of prevention fatness stroke; eating degree energy calorie and eating behaviours are the most factors contributing to the prevalence of obesity and lack of regular physical activity is a key factor in weight gain and the prevalence of obesity.

Keywords: lifestyle, weightiness, obesity, high school students.

1 Introduction

Adolescents often are confronted with lots of changes at this stage of their lives, as their balance is disrupted, mainly at the level of their food behaviours and physical activity [1], due to the huge and continuous development in technology which has made our lives more comfortable, but, in some cases, have also increased pathogenic factors [2], in addition to the non-balanced nutrition, which is based on food that is rich in calories and which, has alarmingly prevailed that it was classified as one of the main reasons of nowadays diseases [3].

The international obesity work group mentioned in its report published in 2004 about kids' obesity that the latter is considered as one of the main health problems of this era, as there are disturbing numbers of the adolescent that suffer it [4]. Several scientific studies were conducted and confirmed the development of diseases due to obesity. These studies recommended the regulation of the style of living of this age category, mainly at the level of food behaviours and lack of physical movement [5,6].

In the light of this proposal, the following problematic seized our attention:

“What is the relation between the style of living, weight increase and the spread of obesity among secondary school pupils?”

Thus, it is possible to ask the following subsidiary questions:

1. Is there a relation between the financial condition of the family and weight increase and the spread of obesity among secondary school pupils?
2. Is there a relation between the lack of daily physical activity and weight increase and the spread of obesity among secondary school pupils?
3. Is there a relation between the lack of regular physical activity and weight increase and the spread of obesity among secondary school pupils?

The Objectives of this study are defining the nature of the relation between the financial condition of the family and weight increase and obesity spread among secondary school pupils and defining the nature of the relation between the lack of physical activity and weight increase and obesity spread among secondary school pupils.

The hypotheses are given by the following points (i) there is a relation between the good financial condition of the family and weight increase and obesity spread among secondary school pupils, (ii) there is a relation between bad food habits and weight increase and obesity spread among secondary school pupils and (iii) there is a relation between the lack of physical activity and weight increase and obesity spread among secondary school pupils.

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2 Material and Methods

The descriptive method was used as it fits for solving this research problematic, as the study describes and analyses the life's pattern at the level of the food behaviour and the physical activity and its relation to weight increase and the emergence of obesity among secondary school pupils.

We use a sample from 7 secondary schools in the state of Mostaganem, including girls and boys whose ages range between 15 and 19.

The research sample includes 98 pupils from 6 secondary schools from the state of Mostaganem suffering weight increase and obesity, the sample was chosen deliberately as it was meant to include pupils who suffer weight increase or obesity.

Table 1. present the characteristics of total sample.

Sample	Number	Average age	Average weight	Average height	Weight increase	Obesity
Boys	34	18	75	1.67	22	12
girls	64				44	20

3 Testing protocol

This research required the use of the following instruments:

The questionnaire is one of the important tools of the survey research that serve for the collection of data related to a given topic, through the preparation of a set of written questions that the investigated person answers personally.

Thus, the researchers assessed the form objectively on the basis of a set of sources and references, and it was destined to secondary school pupils who suffer overweight or obesity, as the questionnaire included close questions which were answered by "Yes", "No" or choice and without giving details, it was as follows:

a) Includes personal information of the sample and the financial situation.

b) Shows the sample's bad food habits at the level of the quantity by the way they eat.

c) Includes the usual daily physical effort and the regular physical movement during the day or the week.

The questionnaire was suggested to our scientific experts in this field. After its validation by our experts (nutrition - physical fitness), we distributed it to 98 pupils in the 7 secondary schools of the Prefecture of Mostaganem.

In addition to that, the body mass index (BMI) equation was used, as it is the best method through which we can define whether the weight of the body is natural or contains extra weight and obesity with its degree. In order to calculate body weight index, we apply the following equation (weight in kilogrammes divided by the height in meter square). Table 2 below demonstrates the **BMI** interpreted for adults in different weight situations.

Table 2. BMI interpreted for adults in different weight situations [7].

BMI =weight_{kg}/(height_m)²	Interpretation
Less than 20	thinnest
25- 20	Ideal weight
30-25	Weight increase
35- 30	obesity
40- 35	Severe obesity

To assure the authenticity of the selection of those secondary school pupils we added another measurement using the waist' circumference measuring tape because the fats accumulated around the waist are more dangerous than those in the surroundings of the buttocks. The table below is an important guide in this regard [8].

Table 3. the Waist Size interpreted for adults [9].

gender	weight increase	obesity
Boys	More than 94 cm	More than 102 cm
girls	More than 80 cm	More than 88 cm

4 Statistical analyses

Data analysis was performed using percentages as Basic Descriptive Statistics, which allow us to reach some conclusions about specific scores in our survey. Basing on overall percentage to represent most personal information variables.

4.1 Results

Table 4. results of the quantity and quality of food consumed per day.

N°	Answers quantity and quality of food	once		twice		More than three times	
			%		%		%
1	Number of basic meals and nuts	00	00	80	81.61	18	18.36
2	Number of kick snack	02	2.04	11	11.22	85	86.74
3	I eat sweets	10	10.20	24	24.48	64	65.32
4	I take a cup of soft drinks	56	57.14	27	27.55	15	15.31
5	I drink a cup of milk	77	78.57	13	13.26	08	00.17
6	I drink a cup of juice	0047	47.95	32	32.65	19	19.38
7	I drink a cup of water	00	00	00	00	98	100
Overall percentage		27.98 %		27.25 %		44.75 %	

- Giving to the results of the table (03), 44.59% of the sample members answered by "more than three times" in most of the expressions, at the highest rate appeared in expressions (7,3,2). The rate of those who answered by "twice" was 27.25%, and the highest rate appeared in expression (1). The rate of those who answered by "one time" was 27.98 %, and the highest rate appeared in expressions (6,5,4).

Hence we conclude that the members of the research' sample have a bad and non-balanced food behaviour and this is one of the factors that lead to the increase of weight or the spread of obesity.

- Rendering to the results shown in the table 60.49% of the sample members answered by "more than three times", as the highest rates appeared in expressions (6,4,2,1). As for the rate of those who answered by "two times" was 27.55%, and the highest rates appeared in expressions (5 and 3). As for the answer by "once", it was given by 23.61% of the sample members, and the highest rate appeared in expression (7).

Table 5. results of the quantity and quality of food consumed during the week.

N°	Answers quantity and quality of food	once		twice		More than three times	
			%		%		%
1	I eat meat of all types	18	18.36	37	37.75	43	43.87
2	I eat pasta	07	7.34	15	15.30	76	77.55
3	I eat vegetables	32	32.65	35	35.71	31	37.67
4	I eat fried potatoes	10	10.20	12	12.24	76	77.55
5	I eat fresh fruit	27	27.55	42	42.85	29	29.59
6	I eat cakes and biscuits	03	3.06	15	15.30	80	81.63
7	I drink energy drinks	65	66.32	33	33.67	00	00
Overall percentage		23.61%		27.55%		60.49%	

Hence, we conclude from the results shown in table (3) that the members of the research sample have a food behaviour that is not balanced in terms of food quality and quantity and therefore this can be considered as a major factor in the increase of weight or the spread of obesity.

Table 6. results of how to deal with the food.

N°	Answers How to deal with the food	once		twice		More than three times	
			%		%		%
1	I eat fast	13	13.26	47	47.95	38	38.77
2	I leave the fork between one chew and the other	40	40.81	51	52.04	07	07.14
3	I talk while eat	22	22.44	17	17.34	52	53.06
4	I eat in standing position	16	16.32	22	22.44	60	61.22
5	I eat reclining	02	2.04	33	33.67	63	64.88
6	I eat while I watch TV	71	72.44	17	13.34	10	10.20
7	I eat fast food while I use the computer	68	69.38	20	20.40	10	10.20
8	I devour all that is in front of me	43	43.87	27	27.55	28	28.57
9	I sink in dinner	29	29.59	42	42.85	27	27.55
10	I sleep immediately after dinner	20	20.40	45	45.91	33	33.67
Overall percentage		42.34%		32.75%		33.41%	

Table 7. results of the level of physical activity daily.

N°	Answers The level of physical activity daily	Once		Twice		More than three times	
			%		%		%
1	I wake up early	27	27.55	43	43.87	28	28.57
2	I arrange my room	36	36.73	26	26.53	36	36.73
3	I go to school on foot	33	33.67	43	43.87	22	22.44
4	I climb more than 4 floors stairs per day	30	30.61	60	61.22	08	8.16
5	I do housework	35	35.71	53	54.08	10	10.20
6	I sit in front of TV for long periods	29	29.59	71	72.44	08	8.16
7	I spend more than two hours in front of computer every day	35	35.71	33	33.67	30	30.61
8	I Sleep for long hours during the weekend	13	13.26	35	35.71	50	51.02
Overall percentage		30.35%		%46.42		%24.48	

Table 8. results of the level of regular physical activity.

N°	Answers Level of regular physical activity	once		twice		More than three times	
			%		%		%
1	Participate in a lesson of physical education	44	44.89	21	21.42	33	33.67
2	There is in our neighbourhood playground for sport	29	29.59	00	00	9	70.40
3	I have some sports equipment	27	27.55	00	00	71	72.44
4	I do some physical exercises at home	17	17.34	28	28.57	53	54.08
5	I practice sport with the children of the neighbourhood	22	22.44	19	19.38	57	58.16
6	Participate in school sports	19	19.38	10	10.20	69	70.40
7	I prefer running outdoors	11	11.22	13	13.26	74	75.5
	I practice sports activity in the weekend	14	14.28	25	25.51	59	60.20
8	I feel tired when I walk quickly for more than 5 minutes	51	52.04	33	33.67	14	14.28
Overall percentage		26.53%		16.89%		56.57%	

Agreeing to the results shown in the table (6). The rate of the sample members' answers about the way they consume food relating to the answer "always" was estimated at 42.34%, the highest rate appeared in expressions (6,7,8), then comes the answers relating to "never" with a rate estimated at 33.41%, and the highest rate appeared in expressions (1,2,9,10). While the rate of the answers relating to "sometimes" was estimated at 32.75%, and the highest rate appeared in expressions (3,4,5). Hence, we conclude from these data that having bad habits in the way of consuming food is considered as one of the factors that lead to the increase of weight or obesity.

Conferring to the results of the table (7) 46.11% of the sample members answered with "sometimes", and the highest rates appeared in expressions (1, 3, 4, 5, 6). The rate of those who answered with "always" was estimated at 30.35%, and that appeared in expressions (7,2), while the rate of those who answered with "never" was estimated at 24.48%, and the highest rate appeared in expression (8).

According to the results of table (8), 56.57% of the sample members answered with "No", and the highest rate appeared in expressions (2, 3, 4, 5, 6, 7, and 8), while 26.53% answered with "Yes", and the highest rate appeared in expression (1). 16.89 % of the members answered with "Sometimes" and that was the least rate recorded.

4.2 Discussion

It is shown that family forecasts related to the financial condition are in first-line risks obesity relative to genetic factors and level of prevention fatness stroke. Where our results line with Individual, Family, and Community Environmental Correlates of Obesity Given the prevalence of obesity and its economic consequences, community health initiatives have shifted toward primary prevention at younger ages [10], A proved by medical Algerian Studies in the case of Prevalence of obesity view the family characteristics and parenting styles shape activity patterns, dietary intake, and obesity risk [11], Interpreted in the present study in food balance quantity and quality connected to the correct food system (habit and energy intake), permitting genetic factors to increase weight fat related to obesity. Supported by the results of Americans multi-ethnic longitudinal study in the case of eating disorder or the nutrition habits and the decreases in physical activity, the case of the Algerian students conducted to obesity according to similar [5,12,13].

-Eating degree energy calorie and eating, behaviours are the most factors contributing to the prevalence of obesity. While our results are in conformity with the recommendation listed by [14] that higher habitual physical activity while participating in aerobic training was associated with greater reductions in central adiposity, and was supportive of weight loss compared to lower levels.

-Lack of regular physical activity is a key factor in weight gain and the prevalence of obesity. Our result confirms the finds reported by previous studies [15] that optimal performance and health require prevention of excess body fat and maintenance of energy balance, where energy balance determines physical activity rather than physical activity affecting energy balance.

5 Conclusion

Our findings suggest that social and lifestyle factors such as the educational level, Family forecasts and physical activity relative to dietary habits of our high school students result in higher levels of obesity. Where our background confirms that A better understanding of the relationships between obesity and lifestyle factors is necessary for effective prevention and management of obesity in youth [16], The case of the Metabolic syndrome report in Algerian studies [17], where similar confirms the need for prevention strategies involving promotion of physical activity related to family behaviours contributes greatly to eating disorders [18] of the obese in young people [19], however, the larger food culture and environment contributes greatly to the weight problems [20] the case of the actual study, confirmed by similar that the Nutrition education programs case of our community should also encourage physical activity for overall wellbeing [12], seen body fat gain and body fat loss are a function of energy balance based on energy intake [21], to conclude we agree that the cross-sectional nature of many of the association studies has meant that there is the strong possibility of reverse causality, i.e., obesity leading to lower PA levels, as opposed to physical inactivity leading to obesity [22], Whereas our results support the results of the meta-analysis, which examined objectively measured PA and changes in body fatness over time, appear to support the premise that excessive fatness leads to inactivity in high school students [23], While the Primary prevention of obesity by promoting active lifestyles and healthy diets should be a national public health priority [16,12,24].

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