A Comparative Study in the Dimensions of the Psychological Adjustment according to the Obesity among Secondary School Students in Amara City

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Abstract

Obesity is widely prevalent in both developed and developing countries as indicated by the world health organization (WHO). Obesity is a threat to human health and contributes to many chronic diseases including stress, diabetes, heart disease, and joint diseases, which in turn negatively affect individuals' psychological health.

Also, obesity is a disease of the age, and it is a type of malnutrition, and a pathological phenomenon, especially in developing countries, as it was the result of changing the quality of meals and the availability of fattened foods (that lead to obesity), and obesity is not, as it comes to mind, a problem for adults, but it is a problem for children. Is spreading.

The adolescence stage is one of the ages in which nutrition plays an important role because of the individual's needs of nutrients to meet the rapid growth. Adolescents have incorrect eating habits that contradict their needs. This result from their being affected by their friends, and their dependence on fast foods, and the high calories these foods contain which may lead to health problems, such as obesity and its complications.

As a result of these changes, adolescents may be associated with some psychological problems, such as personal incompatibility as a result of a change in the body shape such as increasing height. In this sense, Al-Shazly mentions that a person is in a state of constant interaction with his/her environment and may fail to achieve adjustment and among the reasons for this failure is the change in body shape in terms of excess height, excess shortness, thinness, or obesity. All these changes occur in adolescence as a result of rapid growth processes [12].

Keywords: Psychological Adjustment, Obesity, Secondary School Students

Introduction

Obesity is widely prevalent in both developed and developing countries as indicated by the world health organization (WHO). Obesity is a threat to human health and contributes to many chronic diseases including stress, diabetes, heart disease, and joint diseases, which in turn negatively affect individuals' psychological health.

Also, obesity is a disease of the age, a type of malnutrition, and a pathological phenomenon, especially in developing countries. Obesity was the result of change the quality of meals and the availability of fattened foods (that lead to obesity). Obesity is not, as it comes to mind, a problem for adults, but it is an escalating problem among children [1].

Medical research has demonstrated that the occurrence of obesity in childhood is linked to its occurrence in adulthood. Many may view that obesity as a simple matter, some see it as just an unacceptable appearance or a distortion of the beauty of our bodies, and a few may perceive its seriousness. However, they are unable to stop it [2].

Obesity has many causes, as mentioned by Habashi, Senussi, and Habashi, including the lack of cultural awareness, sedentary lifestyle among the most important factors that lead to making a person obese, and these factors include:

• Combining the intake of fatty foods and reducing the level of exercise and genetic factors.

• Social behavior and level of education

• Lack of learning capacity

• Excessive excess in sugary and fatty foods. [3]

Adolescence is considered one of the ages in which nutrition plays an important role because of the individual's needs of nutrients to meet the rapid growth. Adolescents have wrong food habits that contradict with their needs as a result of their influence with their peers and their dependence on fast foods eaten outside the home. Because of high calories they contain, they may lead to health problems like obesity and its complications.

Some research indicated that the rate of obesity in adolescence ranges from 25% to 45%, and this rate ranged from 30 to 60% for men compared to 23% to 75% for women. These rates are among the highest in the world which indicates the magnitude of the problem in the Arab countries.

Many studies conducted in the Arab Gulf countries indicate that the high incidence of obesity in recent years is due to several health, nutritional, economic, social, and psychological factors including the significant increase in the standard of living in the region, and the occurrence of some social changes such as an increase in the rate of eating meals outside the home due to the spread restaurants that offer fast food. The chemical tests proved that fast food have a high caloric content [4].

Due to the change in the body shape and weight gain, this negatively affects the individual's psychological status, especially in adolescence in which the individual transforms from a child to a young man. This in turn affects the acceptance of the family and society as a result of the changes that occur at that stage of the effect of growth and the effect of obesity and thus affects in adolescents' psychological adjustment.

Research problem

Early adolescence is characterized by rapid physical growth and a significant growth rate [5], and because adolescent emotions are influenced by external changes in body parts as the physical growth rates of its members change.

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As a result of these changes, adolescents may be accompanied by psychological problems such as personal incompatibility due to a change in body shape, such as an increase in height, which in this regard states, "Abd Al-Hamid Al-Shazli", that man is in constant interaction with his environment and may fail to achieve compatibility, and one of the reasons for this failure is change in The shape of the body in terms of excess length,

excessive shorts, thin or obese, and all these changes occur in adolescence as a result of rapid growth processes. [12]

Compatibility is a key concept and key pillars of psychology that is defined as "a continuous dynamic process that addresses individual behavior and the environment by changing and changing so that a balance can be struck between the individual and the environment in which he or she lives." [7]

The researchers therefore found that there is a need to study the relation between psychological compatibility and obesity in adolescence.

Study objectives:

This study aims to (1) identify differences in the dimensions of psychological compatibility according to obesity variable among students and high school students in the city of Amara, and (2) identify the association between obesity and students' psychological adjustment dimensions.

Research areas:
The human sphere
Secondary school students are boys and girls in the city of Amara.
Spatial domain
Secondary schools in the city of Amara for boys and girls.
Time domain
18/2/2017-15-4-2017

Study actions:
Search Curriculum
Researchers used the descriptive approach.
Study Society and Sample
The Study Community
The research community is represented by students of high school in the city of Amarah.
Search sample
A sample of 300 students and students from the research community was selected and divided into (150) students for group A and (150) students for group B.

Study sample distribution moderation
The investigator has verified that the sample search is below the curve Moderate in the following variables
1. Time age
2. Length
3. Weight
Table 1. The moderation of the distribution of the sample search in growth variables "time age - Weight - Length " (N = 300)

Variables	Unit of measure	Average	Median	Standard deviation	Skewness
Time age	Year	18.4667	18.0000	0.50742	0.141
Length	Cm	163,5667	163,000	4,37614	0.538

Weight	Kg	63,8000	62,5000	7,16505	0.141

It is clear from the table (1) that all calculated twisting coefficients are between ±3, which means that the sample falls under the moderate curve in all growth variable measurements (age, weight, length)
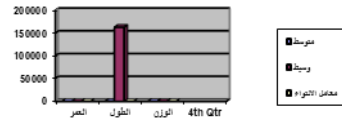

Table 2. The sobriety distribution of the sample research in the dimensions of the scale for students (personal-physical-social) n = 150

Variables	Unit of measure	Average	Median	Standard deviation	Skewness
Personal enemy	Degree	54.02	7.75	56.00	-0.766
The bodywork	Degree	23.16	4.82	24.00	-0.522
The social dimension	Degree	24.82	4.56	25.50	-0.447
Weight	Degree	33.250	33.5	2.121	-1.033

The table (2) shows that all calculated twisting coefficients are between ±3, indicating that the sample falls under the moderate curve in all dimensions of the scale.

Table 3. The moderate distribution of the sample search in the dimensions of the scale for female students (Personal - physical - Social) N = 150

Twist factor	Standard deviation	Median	Average	Unit of measure	Physical capabilities
-0.284	49.00	7.80	48.26	Degree	Personal enemy
0.073	23.00	4.07	23.10	Degree	The bodywork
-0178	23.00	4.04	22.76	Degree	The social dimension
-0.867	3.039	35	33.714	Kilo	Weight

Table (3) shows that all calculated twisting coefficients are between ±3, indicating that the sample falls under the moderate curve in all dimensions of the scale.

is the equivalent of a search sample

After verifying that the basic sample of the research is moderate and (300) students and students in the variables in question, after dividing it into two groups, researchers have equalized them in the variables in question.

Table 4. Equivalence between the two sets of search in scale dimensions (Personal - physical - Social) N1 = N2 = 150

Scale	**Group of**	**Group of students**	The difference	*t*

dimensions	students				between the two	
	P	M	P	M		
Personal enemy	54.02	7.75	56.00	7.75	2.73	0.315
The bodywork	23.16	4.82	24.00	4.82	18.88	0.069
The social dimension	24.82	4.56	25.50	4.56	20.26	0.293
Weight	33.250	33.5	33.714	3.039	33.039	0.338

The t-value is significant at (0.05) =2,048

The table (4) shows the calculated value of "T" smaller than the tabular "T" value of (2,048) at 0.05, indicating that the two groups are equal in the dimensions of the scale.

Data Collection Tools and methods:
Study instruments:
- Rstameter: Measures length (cm) and weight (kg).
- A measure of psychological compatibility designed by the researcher.

The devices used have been calibrated to verify their validity.

First Survey:
Researchers distributed the psychological compliance survey form on **(18/2/2017)** to the same person as (50) students and students at the secondary stage of the research sample and from the research sample community to see the scale fit for the research sample, the time it takes, and the most important difficulties the researcher may face.

Second Survey:
Researchers distributed the psychological scale form (**25/2/2017)** to an eye that reached (50) students and students at the secondary stage of the research sample and from the research sample community on another sample to find scientific parameters for the scale.

Validity:
Validity means "the ability of a measure to measure the trait that has already been measured." [8]

Researchers have verified the scale's validity through virtual honesty and content validation by presenting the measured forms to experts and specialists (7) experts, whose agreement on the scale clauses (70%-100%) has ranged. The researchers also verified the hypothological truth of the scale by calculating the discriminatory capacity of the scale clauses, since the ability of paragraphs to distinguish between individuals with high psychological compatibility and individuals without it is evidence of the hypothesize verb. As shown below.

The discriminatory strength of the paragraphs was calculated, after descending grades from highest to lowest score, and researchers adopted the double-blind technique in calculating the discriminatory strength of the paragraphs.

The upper (50%) and lower (50%) of the grades were taken as upper and lower groups, with the number of leaves in each group (25) and the adoption of the T-Test. To test the significance of the difference between two distinct sample strings, the calculated value of each paragraph was derived and compared to the tabular value of 2.02 at the level (0.05) and the degree of freedom (48), it was found that the calculated value of all the measured

paragraphs was greater than the tabular value and was then kept so that the number of psychosocial meter paragraphs (24) is a paragraph.

Table 5. The discriminatory strength of the psychosocial compliance provisions

Item	Upper Group		Lower Group		t	Item	Upper Group		Lower Group		t
	Mean	SD	Mean	SD			Mean	SD	Mean	SD	
1	2.689	1.052	2.029	1.034	5.894	24	2.563	0.580	1,511	0.799	12.363
2	2.459	0.688	2.231	0.876	8.031	25	3,000	0.632	2.470	0.846	8.718
3	2.803	0.866	1.987	1.003	6.353	26	2.281	0.225	1.133	0.967	10.485
4	2.792	0.978	1.674	0.836	10.100	27	2.563	0.606	2.181	0.903	8.412
5	3.00	0.793	2.488	0.929	8.100	28	2.585	0.578	1,570	0.902	11.005
6	2.987	0.717	2.444	0.927	9.688	29	2.281	0.816	1.051	0.840	12.194
7	2.567	0.707	2.440	0.887	9.101	30	2.965	0.712	2.244	0.850	12.016
8	2.548	1.048	1.703	0.977	6.842	31	2.542	0.607	1.251	0.760	15.375
9	2.496	0.711	2.351	0.936	10.323	32	2.259	0.819	1.933	0.821	13.580
10	2.978	0.649	2.333	0.928	9.313	33	2.848	0.910	2.022	0.935	8.241
11	2.518	0.584	2.411	0.926	9.057	34	2.422	0.706	1.407	1.002	9.615
12	2.875	0.866	2.303	0.831	11.526	35	2.877	1.102	2.051	0.972	7.318
13	2.911	0.844	2.088	0.876	9.970	36	2.644	0.552	1.629	0.852	11602
14	2.422	0.727	2.213	0.905	8.631	37	2.503	0.633	1.644	0.909	9.006
15	2.629	0.592	1.881	0.898	8.120	38	2.437	0.736	1.496	0.854	9.677
16	2.848	0.619	2.355	0.884	11.827	39	2.555	0.464	1.918	0.898	9.617
17	3.00	0.688	2.651	0.940	8.046	40	2.674	0.515	1.703	0.873	11.118
18	2.876	0.849	2.096	1.013	8.513	41	2.659	0.562	1,518	0.929	12.205
19	2.207	0.792	1.829	0.806	12.160	42	2.777	0.434	2.210	0.929	11.502
20	2.518	0.710	2.118	0.838	13.803	43	2.540	0.632	1.442	0.834	12.137
21	2.511	0.678	2.223	0.909	9.454	44	2.466	1.013	1.451	0.709	9.532
22	2.841	0.656	1.333	0.903	13.261	45	2.963	1.046	1,570	0.877	11.849
23	3.00	0.688	2.651	0.940	8.046	40	2.674	0.515	1.703	0.873	11.118
24	2.567	0.707	2.440	0.887	9.101	30	2.965	0.712	2.244	0.850	12.016

The scale in its final form is as follows:
1. After personal (4) positive statements and (4) negative statements.
2. After my body has (4) positive statements and (4) negative expressions.
3. Social dimension has (6) positive terms and (2) negative words.

There is a total grade of the scale, and its total (90) degrees.

Instrument Consistency:
Consistency means "getting the results themselves or close to them, every time the scale is reapplied in similar circumstances, which means precision of measurement". (9:178) The researchers used the re-test method to calculate the stability coefficient by reapplying the scale to the survey sample, and the first application was at a time interval of one week from the second application that was under the same conditions as the first application and a table number (5) showing the stability parameters for the scale dimensions.

Table 6. Mean and Standard Deviation for both the first application and second application and correlation coefficient to dimensions the psychological compatibility standard

Item	Dimensions	First Application		Second Application		Correlation coefficient
		Mean	SD	Mean	SD	
1.	Personal enemy	49.20	8.20	50.10	7.37	0.970*
2.	The bodywork	22.100	3.92	22.75	3.56	0.982*
3.	The social dimension	22.80	4.02	22.92	3.79	0.884*

The value of r at the level of an indication 0.05 = 0.325

The table (6) shows that the dimensions of the mathematical trend probe have high correlation coefficients, indicating that the scale has high stability coefficients.

Consistency of the current scale has been calculated using Cronbach's Alpha:
Stability was calculated using Cronbach's Alpha equation where Ouda indicates that "the average of interconnection coefficients is the best estimate of the average stability coefficients," which can be achieved in a number of ways, including the equation of Cronbach's Alpha. [10]
The Cronbach's alpha coefficient was calculated to calculate the internal consistency of the psychological compatibility scale from the sampling degree to (0.73), thereby achieving the stability of the scale.

Main Study:
The researchers conducted the main experiment where the questionnaire form was distributed to the main research sample (150) students and (150) students from the secondary school in El Emera (3/3/2017) through (15/4/2017) and the researchers collected the scale papers for statistical analysis.

Statistical methods:
Researchers used the SPSS software to process data from and from it and after reference [11]
1. Arithmetic mean
2. Standard deviation
3. Correlation coefficient (Pearson)
4. The value of t
5. Variance analysis

Results:
After correcting the search tool according to a correction key, researchers have unloaded the data in their own statements according to each of the two search sample groups, and then the statistical processing of this data was performed on the statistical package program "SPSS" and the results of the researchers are presented below.

Table 7. Contrast analysis for the dimensions of psychological compatibility and body weight for sample search (n = 300)

Dimension	Source of variance	Sum of squares	df	The average of squares	Significance

Personal	Between groups Within groups Total	4461.375 8249.500 12710.85	3 196 199	1487.125 42.089	Significant
My body	Between groups Within groups Total	527.495 8249.500 3409.995	3 196 199	175.832 14.707	Significant
Social	Between groups Within groups Total	631.78 2592.60 3224.38	3 196 199	210.593 13.228	Significant
Body weight	Between groups Within groups Total	4690.78 17696.72 22387.50	3 196 199	1563.594 90.289	Significant

r is significant at level $(0.05) = 2.600$

Table (7) displays that there is a statistically significant differences between the dimensions of psychological adjustment and body weight. The researchers used the method (LSD) to find the lowest significant difference between the means as demonstrated in the following tables.

Table 8. The significance of the differences between the mean degrees of psychosocial proportions and weight Body For sample search (lowest moral difference) N=300

Dimension	Mean	Personal	Body	Social	Body weight
Personal	58.9400		10.680 ∗	-1.3400	4,9200 ∗
Body	48.2600			2.020 ∗	-5.7600 ∗
Social	60.2800				6.2600 ∗
Body weight	54.0200				

The table (8) shows that there are differences in a statistical function at 0.05 in favor of the dimension (in the personal dimension - the physical dimension) in students and students, while there are no differences between the weight (students and students) in the social dimension.

Table 9. The correlation coefficient between psychological compatibility dimensions and body weight the student group has students N per group = 150

Dimension	Personal	Body	Social	Group
Body weight	-0.674 ∗	-0.525 ∗	-0624 ∗	Students
Body weight	-0.640 ∗	-0.657 ∗	-0.749 ∗	Students

r is significant at level (0.05) = 0.288

Discussion of results:
The most important of these is the fact that, in the case of the United States, the United States is not the only country in the world to have a significant impact on the economic and social development of the world. The body's shape and health fitness have a major role to play in achieving psychological harmony, and this is referred to as "Beida Kelan Mahmoud" (2013)6 which emphasizes the growth and utilization of physical potential to the fullest extent possible. The achievement of physical health, sound food and growth habits, the learning of the physical skills necessary for healthy growth and good physical appearance, which in turn leads to physical and social harmony. [12]
The researchers explain that there are no differences in the psychological compatibility between students and students, and that psychological compatibility is a need for the individual, so there is no difference between a student or student seeking to achieve harmony, as the study of "Mohamed Youssef Ahmed" (13: 65) as there is no difference between social harmony between students and students.
From the table (8), there are statistically significant differences at 0.05 in favor of the dimension (personal dimension - physical dimension) in students and students, while there are no differences between weight (students). In the social dimension, researchers interpret these results as saying that the individual's psychological harmony is influenced by the body's shape if the individual is satisfied with the shape of his body and that this leads the individual to be compatible with himself and then with others, which is referred to by "the Ahmed and Mahdi" [14] the concept of the self is one of the attributes that refers to the individual's compatibility with his or her incompatibility; if the concept of the self is

identical to his or her reality, or as the other realizes it, it achieves the psychological harmony of an individual.

The researchers explain the differences in the physical dimension because in adolescence the physical composition of the girl differs from the boys, and these changes in girls are more than the boys and faster, which is what Rateb and Zahran refer to. The child moves from childhood to adulthood through adolescence, and this period takes about 8 years from the age of a year to about 18 years, and adolescence is not marked by a surge in growth rates for both height and weight in terms of speed. [15]

Physical growth in the early adolescence of 12 to 14 years is characterized by rapid physical growth and a growth boom (16: The growth spurt, which has increased its speed for about 3 years from 10 years to 14 years in females and 20 years in males, is the fastest growing physical growth in females in 12 years and in males in 14 years. [17]

The research explains that there are differences in favor of the personal dimension that the body weight affects the personal aspect of the individual, as this effect is reflected in the individual's activity, mobility and daily activity, and this in turn has an effect on the adolescent's psychological harmony, which is indicated by the study of Hussein and Abdul -Yemma" [18], which is referred to by Davis (19: In addition, the number of people who are living in the same country has increased to 38.58%, while the number of those who are living in the same country has increased to 31.13%.

Conclusions and recommendations:

Conclusions:

In light of the objectives and hypotheses of research and based on scientific procedures for solving the problem, researchers have reached the following conclusions:

1. There is a negative relationship between the body and the psychological compatibility of students and secondary school students in the city of Amara.
2. There are differences in a statistical function in the relationship between obesity and the dimensions of the psychological compatibility standard for students and secondary school students in the city of Amara.

Recommendations:

1. Work to promote health awareness and peaceful nutrition for students and students at the secondary level in AEmara City schools.
2. Activate the role of the media and the school in spreading the culture of health nutrition for this stage (adolescence).
3. He also said that the school has a number of programs to reduce the weight of the school and the community to meet the needs of the school and the community.
4. Work studies to determine the correct physical pattern that is appropriate to the customs of our Arab society.
5. Activate school maths activities.
6. Similar studies to measure psychological trends and needs in this stage of our Arab society.

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