

The Physical and Social Impacts of Child Obesity

By:

Dr. Jasser Hosni Metlaq Alananzeh

Ajloun University College –
Al-Balqa' Applied University

Dr. Hamed Mohammed Doum

Department of Educational Sciences,
Ajloun University
College - Al-Balqa' Applied University

Dr. Suha, M. Kharabsheh

Ajloun Education Directorate– Ministry of
Education-Jordan

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Introduction:

Life styles have changed in the present life as new social and environmental factors have appeared with negative effects on the manners of children and teenagers. Therefore, the children's physical activities have diminished; and a lot of families have had the tendency of consuming more of canned foods with high percentage of calories besides intensified consumption of junk food that has a high level of fats.

The W. H. O. (2000) noticed the worrisome increase in the ratio of early childhood obesity as it has become a global phenomenon . The W.H.O (2000) defines obesity as the up normal excessive accumulation of fats that may lead to disease.

Wieting (2008) stressed that childhood obesity risks are not limited to the likelihood of the occurrence of health problems, but they go beyond to the psychological and the social problems that may last until the age of puberty and negatively affecting the style of the child's life, taking into consideration that obese children may suffer from complications of orthopedic surgeries including the irregular growth of the bones, in addition to chronic diseases like diabetics and hypertension.

Similarly , Daniels (2009) warned against early death that may happen to obese children more than others, as the

number of deaths, among children who suffer of obesity has reached (400, 000) per year in the U.S.A only.

The problem goes beyond the obesity to the health problems associated with the likelihood of heart diseases and specific kinds of cancer, diabetes and early death on the long run. Studies indicate that by 2020 the ratio of the people suffering from the diseases associated with obesity in the developing countries will rise to 60% Obeidat & Mahadeen, 2013.

Kelihadi (2007) stressed that ratio of obese children through the world was (0.23) by 2010. Meanwhile the W.H.O. estimated that (2.3) milliard people of the world population would be obese by 2015 according to the Consumer International Report 2008.

Likewise, William (1998) stressed that the most widespread risks of child obesity are the psychological and the social ones as they will be targets of early discriminations and derision.

Because of the importance of child obesity, many studies have been conducted. Hammond and Levine (2013) studied the effects of child obesity on the national economy of the United States, where more than two thirds of adults are overweight while the other third are obese. They also studied the direct medical costs, the production costs, transportation in addition to the costs of human resources. The study reviewed the related literature of obesity impact on the national economy of the United States and concluded that a substantial portion of the US economy is allocated for the medical expenses of obesity.

Ayadi (2008) conducted a study under the title of : The Role of The School In curbing Childhood Obesity in France which showed the role of the school as one of the

significant normalization social factors that reduce the widespread of early child hood obesity through school programs fostering healthy food habits . The results of this pioneer study that involved the children and their parents, with guided interviews , indicated that families gave up their eating habits after they have got information learnt by the children at school , thus, affecting the eating habits of the whole family.

Ahmed's study 2008 that sought to identify the kinds of traditional fast foods and their effects on having obesity in the adolescence stage in Jeddah governorate, Saudi Arabia. The study involved (60) male and (60) female participants of the age group (12-18) years in the public schools for the intermediate and the secondary stages. The study concluded that the majority of the sample members prefer both kinds of food: the traditional and the Western. This makes them prone to obesity associated diseases.

Aurjan's study (2005) explored the relationship between physical fitness based on health and the blood fats of children between (12- 15) years. The 102 sample was chosen through the purposeful method that was adopted to choose children who do not carry out specialized physical training activity but they don't suffer any kind of explicit diseases. The results indicated a high level of fats in the blood of members who don't practice any physical training activities. This makes them more prone to cardiovascular diseases and diabetes than those who practice physical training activities continuously.

Problem of the study:

The problem of obesity in general and child obesity in particular has been given extreme importance on the social, the medicals and the sportive levels. Still the obesity

phenomenon has been a heavy load on the national economy of the governments of the world according to the relative literature of this issue (Hammond and Levine, 2013). We conclude from the above discussion that the problem of this study is determined in finding out the physical and social impacts of child obesity.

Questions of the study:

The study attempted to answer the following questions:

1. What are the physical impacts of child obesity?
2. What are the social impacts of child obesity?
3. Are there any statistical significant differences at the level ($\alpha = 0.05$) of the social impacts of child obesity attributed to the academic qualification?
4. Are there any significant differences at the level ($\alpha = 0.05$) among the social impacts of child obesity?

Objectives of the study:

The study is designed to identify the following:

1. Identifying the physical and social impacts of child obesity as seen by the educational advisors.
2. Putting forward a set of recommendations based on the findings of the study and presenting them to the Ministry of Education in Jordan to utilize them in curtailing the widespread phenomenon of obesity among the schools' children.

Importance of the study:

The importance of the study is reflected by the following:

1. The contribution of the study to the theoretical literature and the past studies.

2. As Obesity has been a global concern, this study can draw the attention of the authorities of the ministry of education, decision makers and the families of school children to the importance of the information provided about obesity in order to take preventive measures contributing to curtailing child obesity.

Limitations of the study:

This study is limited to a sample of the educational advisors in the schools of The Education Department of Ajloun Governorate in Jordan.

Operational definitions:

The physical and social impacts: The set of obesity risks that hinder the child's sports or physical activities, or they may make the child prone to the derision of others. The impacts can be measured by the answers by the sample members to the questions of the study.

Obesity: It is the accumulation of extra fats in the boy to the extent that it renders negative impacts on one's health and decreasing one's life average.

Study method and procedure:

The study approach: the researchers adopted the descriptive approach through designing a refereed questionnaire to get answers of the questions of the study.

Population and sample of the study: the population of the study consisted of all educational advisors in the government schools of Ajloun Governorate in Jordan for the scholastic year (2013-2014) . The researchers randomly chased (58) male and female advisors distributed as shown in table-1:

Table (1)
frequency and percentage of the variables of the study

	Category	Frequency	Percentage
sex	Male	17	29.3
	Female	41	70.7
Qualification	B.A.	47	81.0
	M.A.+	11	19.0
	Total	58	100.0

Instrument of the study:

To achieve the goals of the study the researchers have designed a questionnaire for the study , depending on a number of previous relevant studies and related literature. In addition, the opinions of the judges and educationists were taken into consideration .Accordingly thirty one items were

Formulated; each one of them representing a specific situation the response of which is based on Likert quintet scale.

Validity of the study:

To check the validity of the instrument of the study , the researchers adopted the content validity method ,they presented the draft of instrument to eight judges holding PhD. in Educational Management , Measurement and Evaluation, Sociology and Physical Training who are members of the teaching staff at the governmental Jordanian universities. They researchers requested the judges’ opinions of the validity of the items and how suitable were they for the fields they were designed for; they were also asked to add or delete any items to make the instrument validity. Then, the items were cut down to eighteen (18) items instead of (31) after the judgment process, distributed on the two Dimension of the study: the physical and the social impacts of child obesity.

Reliability of the Study: to ensure the reliability of the study, the researchers used the test and retest method

through applying the standards and then after two weeks to a group of (15 female and male advisors who do not belong to the sample of the study. The Pearson correlation coefficient was calculated for the values of cases, the test and retest.

The researchers calculated the r-coefficient by using the internal consistency according to Cronbach's alpha as shown in table – 2. The internal consistency coefficient showed and the retest reliability that the values were appropriate for the study.

Table (2) The internal coefficient according to Cronbach alpha and the retest

VARIABLES	RETEST RELIABILITY	INTERNAL CONSISTENCY
Physical impacts of child obesity	0.91	0.85
The social impacts of child obesity.	0.87	0.90

The statistical processing: to answer the questions of the study the following statistical analyses were used:

1. To answer the first and the second questions, the researchers calculated the means and the standard deviations for the two variables of the study instrument and for the items of both variables,
2. To answer questions three and four, the researchers calculated the means and the standard deviations of the of the physical and social impacts as seen by the educational advisors according to bothe variables of sex and academic qualifications .

To interpret the >results and coming up with final results, the researchers adopted the standard tri- parameter scale as shown in table -3:

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Table (3) the tri - parameter

From 1-2.33	low
From 2.34 to less than 33.6	average
From 3.66- to 5.00	high

Results of the study:

Results related to the first question: What are the physical impacts of child obesity?

The researchers calculated the means and standard deviations of the physical impacts of child obesity as shown in table-4.

Table (4) The means and standard deviations
of the physical impacts of child obesity
in descending order per standard deviations

rank	No.	Items	Means	S.D	Impact
1	1	Obesity is major obstacle that hinders the obese child participation in sports activities.	3.88	.796	High
1	4	The obese child suffers from breathing difficulties when carrying out any physical efforts.	3.88	.727	High
3	2	Obesity increases the chances of the obese child sickness of many obesity associated diseases.	3.84	.834	High
4	3	Child obesity leads to physical inactiveness	3.83	.901	High
5	7	The obese child is not physically fit	3.79	.744	High
6	6	Obesity decreases the Child's chance of participating in the physical training activities at school	3.76	.657	High
7	5	Obesity gravely decreases the physical activity of the obese child	3.72	.720	High
8	8	The obese child suffers from the back bone bend	3.55	.820	High
9	9	Obesity leads the deformation of the stature		.800	High
		Physical impact on children	3.75	.536	High

Table- 4 shows that at the means vary from (3.50) to (3.88) where items (1, 4) which state that “obesity is major

obstacle that hinders the obese child participation in sports activities .” And „The obese child suffers from breathing difficulties when carrying out any physical efforts.’ Ranked first with a mean of (3.880) whereas item 9 which states ” Obesity leads to the deformation of the stature . with a mean of (3.50). the means of the physical impacts together was (3.75).

Results related to the second question: What are the social impacts of child obesity?

to answer this question, the researchers calculated the means and standard deviations of the social impacts of child obesity as shown in table -5.

Table(5) the means and standard deviations of the social impacts of child obesity in descending order of the means

Rank	No. S	Items	mean	S.D	degree
1	7	The obese child find it difficult to choose proper clothes.	3.91	.801	High
2	1	The obese child suffer from many sarcastic comments on his obesity	3.81	.661	High
3	4	The obese child suffers from the inability to behave freely.	3.76	.844	High
4	3	obese child feels embarrassed and shy when appearing in front of others.	3.74	.715	High
5	2	The obese child feels that he is always watched by others	3.72	.744	High
	5	The obese child has low self confidence	3.69	.863	High
7	9	The obese child fears socialization.	3.69	.842	High
8	8	He obese child tends to loneliness and seclusion.	3.66	.890	High
9	6	obesity tends to seclude the obese child and inflict him with depression and psychec disorders	3.50	.922	High
		Obesity social impacts	3.72	.616	High

Table -5 shows that the means vary from (3.50) to (3.91), with item 7 which states “The obese child find it difficult to choose proper clothes.” Came first with a means of (3.91) whereas item 6 which states ” obesity isolates the obese child fom others and make him feel depressed besidres suffering other psychic disorders” came last with a mean of (3.50). The mean for the social impacts of child obesity as a whole was (3.72).

Results related to the third question: Are there any statistical significant differences ($\alpha=0.05$) of the social impacts of child obesity attributed to the academic qualification?

The researchers calculated the means and standard deviations of the physical impacts of child obesity according to the variables of sex and qualification as shown in table-6.

Table (6) means and standard deviations of obesity physical impacts for the two variables of sex and qualification

		Means	S.D	number
sex	Male	3.79	.597	17
	Females	3.73	.515	41
Qualification	B.A	3.78	.522	47
	M.A +	3.65	.606	11

Table 6 - shows that there is an overt variation among the ,means and the standard deviations of the physical impacts of the child obesity, because of the differences between the two variables of sex and qualification. to find out the significance of the statistical differences the bi variance analysis was used as in table 7.

Table (7) the bi-analysis of impact of sex and educational qualification on child obesity

Source of variance	Sum of squares	Freedom degree	means of squares	F-value	significance
sex	0.071	1	0.071	0.241	0.626
Qualification	0.181	1	0.181	0.615	0.436
error	16.135	55	.293		
Total	16.353	57			

Table 7 shows the following: There are no statistically significant differences at ($\alpha=0.05$) attributed to the sex impact as f-value=0.241 with significance value of :0.436.

Results of question four: Are there any significant differences at ($\alpha=0.05$) among the social impacts of child obesity, attributed to sex and qualification?

To answer this question the researchers calculate the means and the standard deviations of the social impacts of child obesity according to the variables of sex and qualification as shown in table -8.

Table (8) the means and standard deviations of the social impacts obesity according to of child sex and qualification

		mean	S,D	number
sex	male	3.76	.570	17
	Females	3.70	.640	41
Qualification	B.A	3.73	.601	47
	M.A +	3.68	.705	11

Table -8 show overt variations in the means and standard devotions of the social impacts of child obesity because of the variations in the variables of sex and qualification. To determine the significance of the statistical

differences among the means, the researchers used the bi-variance analysis as shown in table -9.

Table (9) bi-variance analysis of impacts sex and qualification on the social impacts of child obesity.

Source of variance	Sum of squares	Freedom degrees	Means of squares	f-value	Significance
sex	0.047	1	0.047	0.120	0.731
Qualification	0.038	1	0.038	0.097	0.756
Error	21.538	55	0.392		
Total	21.611	57			

Table-9 shows the following: There are no significant differences at ($\alpha=0.05$) among the social impacts of child obesity, attributed to sex as the f- value was 0.120 with a statistical significance of 0.731.

there are no significant differences at ($\alpha=0.05$) among the social impacts of child obesity, attributed to qualification as the f- value was 0.097 with a statistical significance of 0.756.

Interpretation of the results and recommendations:

The study's objective was to reveal the physical and social impacts of child obesity of school children at the educational directorate of Ajloun governorate in Jordan. An especially designed questionnaire to collect the pertaining data and the SPSS was used for analysis of the study results.

The study showed the following results:

1. The physical and social impacts of child obesity were high for the entire item and for the items as a whole. And for all dimensions. This result reflects the advisors' awareness of determining the impacts of child obesity (the physical and the social) besides

recognition of the nature of those impacts: the physical or the social. This result is in line with most of the findings of the previous studies such as Hammond and Levine's (2013) which showed that obesity has become a burden on economy because of forcing the governments to allocate a high percent of the national incomes for tackling the increasing risks of physical and social risks of obesity. The findings also go with Ayyadi's study (2008) which showed that the wide spread of obesity entails that schools have to carry out their counseling role to curtail the phenomenon of obesity of school children.

2. The study showed that there were no statistical significant differences attributed to sex and qualifications for all the variables of the study. This is maybe because the physical and social impacts including the instrument of the study formed a point of concord among the members of the sample, especially as the members of the sample live under almost identical educational conditions. All of this produced a kind of consistency in the points of view of the impacts of obesity. Thus, there were no statistically significant differences.

Recommendations:

In light of the findings of the study, the researchers recommend the following:

1. The need to carry out obesity awareness programs or campaigns about the physical and social impacts of child obesity.
2. The schools need to carry out sports activities contributing to curtailing the phenomenon of child obesity.

3. It is necessary to make the Parents and families aware of the components of healthy nutrition to follow programs curtailing the phenomenon of child obesity. it is also necessary to get rid of as much as possible the junk food.
4. Conducting studies similar to the present study to identify the causes of the wide spread of child obesity among school children.
5. Conducting child obesity negative impacts awareness program to curb this dangerous phenomenon.

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