

**Percepción materna y estado de peso del hijo escolar en
una comunidad rural**

*Maternal perception of the state of weight of the schoolchildren in a rural
community*

*Percepção materna e status de peso da criança em idade escolar em uma
comunidade rural*

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Resumen

La percepción materna es el reconocimiento y la discriminación de la madre respecto al peso del hijo, considerándolo como un niño con sobrepeso, con desnutrición o sano; las madres con una percepción inadecuada refieren que el peso del hijo no es un problema de salud y, en consecuencia, evitan la identificación oportuna de alteraciones nutricionales que afectan su crecimiento y desarrollo. El objetivo de esta investigación fue determinar la relación entre la percepción materna y el estado de peso del hijo escolar (6 a 10 años de edad) en una comunidad rural. Participaron 92 diadas (madre-hijo escolar) por muestreo tipo censo. Se aplicó la escala de figuras de niños donde las madres seleccionaron la imagen que representaba el peso del hijo y se obtuvieron datos del estado de peso y sociodemográficos de los participantes, con su autorización y la de las autoridades escolares. A partir de ello se realizó un análisis descriptivo e inferencial, el cual arrojó que 65 % de las progenitoras se encontraron en sobrepeso y 32.5 % de los escolares en desnutrición leve. Además, la percepción de las madres respecto al estado de peso de su hijo fue inadecuada en tres momentos: el actual 58.3 %, el ideal 60.8 % y el futuro 51.7 %. Respecto a la relación entre la percepción materna y el estado de peso del escolar no fue estadísticamente significativa; sin embargo, se apreció que las madres con sobrepeso u obesidad tienen una percepción inadecuada del estado de peso de su hijo contrario a la madre con peso normal. Los resultados permiten diseñar e implementar estrategias para este grupo que favorezca la salud de los escolares.

Palabras clave: escolares, IMC, percepción materna.

Abstract

The maternal perception is the recognition and discrimination of the mother regarding the weight of the child, considering him as a child with overweight, malnourished or healthy; mothers with inadequate perception report that the weight of the child is not a health problem, avoiding the timely identification of nutritional alterations that affect their growth and development. To determine the relationship between the maternal perception and the weight status of the schoolchild in a rural community. Involving 120 dyads (mother-child) by

census-type sampling. The scale of children's figures was applied where the mothers selected the image that represented the weight of the child and data of the weight and sociodemographic status of the participants were obtained, with their authorization and that of the school authorities. Descriptive and inferential analysis was obtained. 65% of the mothers were overweight, 32.5% of the children in mild malnutrition. The perception of the mothers regarding the weight status of their child was inadequate in three moments: current 58.3%, ideal 60.8% and future 51.7%. Regarding the relationship between the maternal perception and the weight status of the schoolchild, it was not statistically significant; however, it was observed that overweight or obese mothers have inadequate perception of their child's weight status than normal-weight mothers. The results allow to design and implement strategies for this group that favors the health of the child.

Keywords: schoolchildren, BMI, maternal perception.

Resumo

A percepção materna é o reconhecimento e a discriminação da mãe em relação ao peso da criança, considerando-o como uma criança com excesso de peso, desnutrida ou saudável; Mães com percepção inadequada relatam que o peso da criança não é um problema de saúde e, conseqüentemente, evitam a identificação oportuna de alterações nutricionais que afetam seu crescimento e desenvolvimento. O objetivo desta pesquisa foi determinar a relação entre a percepção materna e o status de peso da criança em idade escolar (6 a 10 anos) em uma comunidade rural. Noventa e dois díades participaram (escola materno-infantil) por amostragem do tipo censitário. Foram obtidos dados de escala de crianças, onde mães selecionadas a imagem que descreve o peso dos dados da criança e estaduais e peso sócio-demográfico dos participantes, com as autoridades de permissão e escolares foi aplicado. Com base nisso, foi realizada uma análise descritiva e inferencial, que mostrou que 65% dos progenitores apresentavam sobrepeso e 32,5% dos escolares em desnutrição leve. Além disso, a percepção das mães sobre o peso de seus filhos foi inadequada em três momentos: os atuais 58,3%, os ideais 60,8% e os futuros 51,7%. Em relação à relação entre a percepção

materna e o status de peso do escolar, não foi estatisticamente significativa; no entanto, observou-se que as mães com sobrepeso ou obesas têm uma percepção inadequada do status de peso da criança, em oposição à mãe com peso normal. Os resultados permitem projetar e implementar estratégias para esse grupo que favoreçam a saúde dos escolares.

Palavras-chave: escola, IMC, percepção maternal.

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Introduction

A nutritional deficit in children results from the imbalance between intake and caloric expenditure, and causes overweight, obesity, low weight or malnutrition (Flores et al., 2014). According to the National Nutrition Survey [Ensanut] (2016), in Mexico the combined prevalence of overweight and obesity in the school-age population was 33.2% (confidence intervals [CI] of 95% 29.6, 37.1), the prevalence of overweight of 17.9% (95% CI 15.2, 21.1) and obesity of 15.3% (95% CI 12.5, 18.6). When differentiated by gender, girls were 20.6% overweight (95% CI 16.2, 25.8) and 15.5% obesity (95% CI 12.2, 19.4), while in boys it was 15.4% (95% CI 12.6, 18.6) and 18.6%. % (IC95% 14.3, 23.2), respectively. Also, data from the Nutritional Profile of Hidalgo Schoolchildren [Penuteh] (Galván and López, 2010), showed that 7.9% of schoolchildren had short stature or chronic malnutrition, with a greater presence in girls from rural areas, and overweight or obesity affected in greater proportion to children (30.5%).

Among the factors that contribute to overweight, obesity, low weight and malnutrition are the diet with foods rich in fats and sugars, but with deficient amounts of vitamins, minerals and other healthy micronutrients, as well as lack of physical activity, some genetic factors, socioeconomic status, sociocultural factors in food practices and lack of understanding about the consequences these practices will have on health (Ahumada, Trejo y Flores, 2016).

The school-age population requires adequate food quality and quantity to promote healthy development, avoid the presence of diseases and be at an optimal physical level (González et al., 2010). Overweight and obesity during childhood generate cardiovascular diseases, dyslipidemias, diabetes mellitus, chronic kidney disease, respiratory distress, risk of fractures, depression, low self-esteem and social discrimination; In addition, it is estimated that 40% of children will become adults with obesity (Aviña, Castillo, Vázquez, Perales and Aleman, 2016). On the other hand, malnutrition has an impact on low academic performance, diminished productive capacity and bone injuries, which is a risk for child development, with poverty, infections and an inadequate diet as determinants (Mamani, Rojas, Caero and Shock, 2013).

Body image, on the other hand, is defined as the mental representation of various aspects of physical appearance. This, the body image, consists of three components: the perceptual, the behavioral and the cognitive-affective (Padilla, Roselló, Guzmán, Aráuz, 2006). When there is an alteration in body image is due to the presence of eating disorders and is reflected in any of the aforementioned components (Bracho and Ramos, 2007). It has been observed that overweight and obese mothers perceive inadequately the weight of the child; likewise, they tend to underestimate them, since in these there is an inability to adequately perceive the nutritional status of their offspring, so it is easier to perceive the nutritional problems of children in whom there are no blood ties involved. It has also been observed that for mothers with inadequate perception the weight of their children is not a health problem (Nuño, Hevia, Bustos, Florenzano and Fritsch, 2017). That is, a mother of a child who is overweight or obese may see her child with a lower percentage of her actual body mass index (BMI), which results in a lack of concern about adequate nutrient intake and, by extension, in an excess or decrease in weight for their size and age (Lameiras, Calado, Rodríguez y Fernández, 2003).

Among the diverse families that exist in a certain society there are differences in lifestyle, hygienic-dietary habits and ways of perceiving their environment. Some families consider that an overweight or obese child is healthy and perceive that they can face and resist infections better than a normal weight child (Antacle et al., 2017).

For all the above, the following research question was formulated: What is the relationship between the maternal perception and the weight status of the school child in a rural community? Before which the following hypothesis is posed: There is a relationship between maternal perception and the weight status of the school child. Finally, the objectives were to describe the sociodemographic and anthropometric characteristics of the participants, assess the nutritional status of the participants, identify the maternal perception of the weight status of the student and determine the relationship between the maternal perception and the weight status of the student.

Method

It was a cross-sectional descriptive study, involving 92 dyads (mother / child of school age), by census-type sampling. They were primary school students, between 6 and 10 years old, from a rural town in the municipality of Tulancingo de Bravo, Hidalgo, with the signed consent of the participants, informed consent of the schoolchild and authorization of the institution.

For the measurement of the variable Maternal Perception, the scale of children's figures designed by Collins (1991) was used, which consists of several series of drawings that represent boys and girls, as well as adult women and men with different body weight. The images are represented in descending form from left to right. The image on the left represents the child with obesity and the image on the right represents someone with malnutrition. This instrument reported a reliability coefficient of .91. In the collection of sociodemographic data, a card was designed that included personal, school and work data. Likewise, weight and height assessments were made to calculate the body mass index (BMI) of mothers and children, which allowed us to classify the weight status of the participants based on the World Health Organization. (OMS).

The approval of the Graduate Research Committee of the Faculty of Nursing of the Autonomous University of Querétaro was obtained, in addition to the authorization of the basic education institution, as already mentioned above. In primary school, contact was made with the school authorities, later with the mother and her daughter, who were asked to participate in the study. To this end, a meeting was held where the objectives and procedures

of the research were presented, integrating the census of students and mothers by grade level. In that same meeting the sociodemographic data, weight status and maternal perception were obtained. To obtain the weight and size of the participants, the procedure of Official Mexican Standard NOM-008-SSA2-1993 was followed and a mechanical pedestal scale with a capacity of 120 kilograms was used, with a graduated stadiometer in centimeters, brand Nuevo León, model Clinic 160; of first instance to schoolchildren and later to mothers. The applied formats and instrument were collected and revised to detect any missing data. To classify the BMI of children, reference was made to the nutrition tables included in the National Health Book of the Ministry of Health of Mexico, which follows the criteria proposed by the WHO.

In the data analysis, descriptive and inferential statistics were applied with the support of the statistical program SPSS version 17; for the categorical variables frequencies and proportions were obtained, while for the continuous variables measures of central tendency and dispersion; It should be noted that χ^2 was squared. In the same way, the present study adhered to the provisions of the Regulation of the General Law of Health in the Matter of Health Research. (2014).

Results

Table 1 shows the sociodemographic and anthropometric characteristics of the study participants, where the mothers were between 23 and 46 years of age and a BMI of 27.02 (SD = 3.31). In the case of the children, they were between 6 and 10 years of age and a BMI of 17.86 (SD = 3.49) (see table 1).

Tabla 1. Datos descriptivos de los participantes: variables cuantitativas

Variable	Valor Mínimo	Valor Máximo	Media	Mediana	DE
Datos de la madre					
Edad	23.00	46.00	33.09	33.50	4.91
Peso	45.30	81.00	63.16	63.00	7.09
Talla	1.43	1.65	1.52	1.53	.039
IMC	19.61	37.65	27.18	26.93	3.27
Datos del escolar					
Edad	6.00	10.00	8.66	9.00	1.17
Peso	17.00	67.00	31.15	29.00	9.71
Talla	1.10	1.54	1.30	1.31	.090
IMC	12.50	30.59	17.86	16.77	3.49

n = 92

Fuente: Cédula de datos sociodemográficos y antropométricos

Regarding the assessment of the nutritional status of the participants, Table 2 was performed, where 25% of the mothers presented normal nutritional status, 60.9% overweight, 8.7% obesity grade I and 5.4% obesity grade II. In schoolchildren, 41.3% normal nutritional status, 34.8% mild malnutrition, 14.1% overweight and 9.8% obesity grade I (see table 2).

Tabla 2. Estado nutricional de los participantes

Variable	<i>f</i>	%
Datos de la madre		
Peso normal	23	25
Sobrepeso	56	60.9
Obesidad I	8	8.7
Obesidad II	5	5.4
Datos del escolar		
Peso normal	38	41.3
Desnutrición leve	32	34.8
Sobrepeso	13	14.1
Obesidad I	9	9.8

n = 92

Fuente: Cédula de datos antropométricos

In relation to the maternal perception of the weight status of the school, Table 3 is presented, which shows that mothers have an inadequate perception of the child's weight status in three moments: the current 58.3%, the ideal 60.8% and the future 51.7% (see table 3).

Tabla 3. Percepción materna del estado de peso del escolar

Actual	<i>f</i>	%
Adecuada	34	37
Inadecuada	58	63
Ideal	<i>f</i>	%
Adecuada	35	38
Inadecuada	57	62
Futura	<i>f</i>	%
Adecuada	43	46.7
Inadecuada	49	53.3

n = 92

Fuente: Escala de figuras de niños

Regarding the relationship between maternal perception and the weight status of the school, it was not statistically significant (see table 4); however, it was observed that overweight or obese mothers have more inadequate perception of their child's weight status than mothers in normal weight (see table 5).

Tabla 4. Percepción materna del estado de peso del escolar por IMC del escolar

IMC/Actual	Adecuada		Inadecuada		
	<i>f</i>	%	<i>f</i>	%	
Desnutrición leve	13	40.6	19	59.4	$X^2 = 2.20$ $p = .531$
Peso normal	12	31.6	26	68.4	
Sobrepeso	4	30.8	9	69.2	
Obesidad I	5	55.6	4	44.4	
IMC/Ideal	Adecuada		Inadecuada		
	<i>f</i>	%	<i>f</i>	%	
Desnutrición leve	16	50	16	50	$X^2 = 2.99$ $p = .393$
Peso normal	12	31.8	26	68.4	
Sobrepeso	4	30.8	9	69.2	
Obesidad I	3	33.3	6	66.7	
IMC/Futura	Adecuada		Inadecuada		
	<i>f</i>	%	<i>f</i>	%	
Desnutrición leve	16	50	16	50	$X^2 = .641$ $p = .887$
Peso normal	16	42.1	22	57.9	
Sobrepeso	8	61.5	5	38.5	
Obesidad I	3	33.3	6	66.7	

$n = 92$

Fuente: Escala de figuras de niños y Cédula de datos antropométricos

Tabla 5. Percepción materna del estado de peso del escolar por IMC de la madre

IMC/Actual	Adecuada		Inadecuada		
	<i>F</i>	%	<i>f</i>	%	
Peso normal	11	47.8	12	52.2	$X^2 = 3.84$ $p = .279$
Sobrepeso	21	37.5	35	62.5	
Obesidad I	1	12.5	7	87.5	
Obesidad II	1	20.0	4	80.0	
IMC/Ideal	Adecuada		Inadecuada		
	<i>F</i>	%	<i>f</i>	%	
Peso normal	11	47.8	12	52.2	$X^2 = 4.61$ $p = .202$
Sobrepeso	22	39.3	34	60.7	
Obesidad I	2	25	6	75	
Obesidad II	0	0	5	100	
IMC/Futura	Adecuada		Inadecuada		
	<i>F</i>	%	<i>f</i>	%	
Peso normal	12	52.2	11	47.8	$X^2 = .641$ $p = .887$
Sobrepeso	26	46.4	30	53.6	
Obesidad I	3	37.5	5	62.5	
Obesidad II	2	40	3	60	

$n = 92$

Fuente: Escala de figuras de niños y Cédula de datos antropométricos

Discussion

The findings found in this research show that the maternal perception regarding the weight status of the school was inadequate in 51.7% of the participants. These results are different from those presented by Lara, Flores, Alatorre, Sosa and Cerda (2011), where 84 out of 100 mothers did not adequately perceive their child's weight. Likewise, in another study conducted by Giordano and Sartori (2012) it was shown that the alteration of the maternal perception of nutritional status was significantly higher in children with excess weight. It was also corroborated that, according to the Ensanut (2016), malnutrition in schoolchildren affects a greater proportion in the rural area; In addition, the evaluation of the weight status showed that overweight and obesity are present both in the child population and in the mothers of the schoolchildren in this specific area.

Finally, one of the limitations of the present study is that it worked with a school, while its strength was in the rural area.

Conclusions

The inadequate maternal perception of the weight status of her son was related to the prevalence of overweight and obesity, both in the child population and in the mothers who participated in this investigation. The scholar of the rural area presented alterations in his weight status.

It is considered that mothers, when carrying out a timely detection of nutritional problems due to excess or deficit of diet in children, have a strategy to improve the health of their children and reduce the risk that they will be affected in adulthood. negative. It is suggested to implement healthy lifestyles in mothers to improve their health and correct nutritional problems and provide tools to the mother for the perception of the nutritional status of her child to be objective.

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