

Body perception in a rural area of Mexico: is it just a matter for women or also for men?

Cuerpo y percepción en una zona rural de México: ¿una preocupación solo de mujeres o también de hombres?

Ana Gabriela Romero Juárez¹
Sara Elena Pérez Gil Romo¹
Sergio Aaron De la Rosa Cruz²

¹ Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán. Ciudad de México, México.

² Universidad Autónoma Metropolitana, Unidad Xochimilco, Licenciatura en Nutrición. D.F., México.

Correspondence

Ana Gabriela Romero Juárez
Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán
Ave. Vasco de Quiroga 15, Col. Belisario Domínguez, Sección XVI. Ciudad de México, México.
E-mail: micropollit@gmail.com

Abstract

Introduction: This paper is part of food and gender research, in which the body is considered as a social construct. Concerns on the body, body image and food has become a problem, especially for urban women. However, there is little information on what happens with men and women living in rural areas of the country. *Objectives:* Investigate how women and men in rural areas perceive their bodies, how they would like to look and what they actually know about food. *Methodology:* In a rural community located in the State of Mexico, 19 men and 30 women were surveyed, measured and weighed. They selected from 9 figures, according to their self-perception and their desired figure. *Results:* Some sex differences in body perception were found: men perceived themselves thinner than they are in fact, and some women perceived themselves as overweight. Both groups would like to be thinner. More alterations were observed in male self-perceptions. No gender differences were found in relation to traditional knowledge on food, body and health. *Conclusion:* Aiming at implementing measures for preventing and treating high-risk eating practices, which are usually associated with body image issues, it is necessary to increase the number of studies on altered body perception of men and women living in rural areas.

Keywords: Body. Self Perception. Gender.

Resumen

Introducción: El presente trabajo se inscribe en los trabajos de alimentación y género donde el cuerpo es visto como un

constructo social. La preocupación por el cuerpo, la imagen corporal y la alimentación se han convertido actualmente en un problema, sobretodo para las mujeres urbanas, sin embargo se sabe poco de lo que sucede entre los hombres y mujeres que viven en las zonas rurales del país. *Objetivos:* Conocer cómo son, cómo se perciben y cómo desean ser las mujeres y hombres de una comunidad rural y cuáles son algunos de sus saberes alimentarios. *Metodología:* Se encuestaron y midieron a 19 hombres y 30 mujeres en una comunidad del Estado de México los que seleccionaron entre 9 figuras, aquellas con las que identificaron su percepción y su deseo. *Resultados:* Se encontraron ciertas diferencias entre los sexos en la percepción corporal: los hombres se perciben más delgados, y algunas mujeres con sobrepeso. Ambos sexos desean estar más delgados y se detectaron más alteraciones en la percepción masculina. Los saberes sobre alimentación, cuerpo y salud no mostraron grandes diferencias genéricas. *Conclusión:* Se resalta la conveniencia de aumentar el número de estudios dirigidos a conocer la percepción y alteración corporal en hombres y mujeres que pueden conducir a prácticas alimentarias de riesgo en ambientes rurales con el propósito de implementar acciones de prevención y tratamiento.

Palabras clave: Cuerpo. Percepción Corporal. Género.

Introduction

The epidemiological issue: some data

In Mexico, overweight and obesity have become the most important public health problems. Results from the last national health and nutrition survey¹ show that the combined prevalence of overweight and obesity (BMI ≥ 25 kg/m²) is higher in women (73%) than in men (69%), and that the prevalence of obesity (BMI ≥ 30 kg/m²) is higher in females than in males. When analyzing the trends of the Body Mass Index (BMI) categories in women aged 20 to 49 years, it is observed that in the period from 1988 to 2006^{2,3} the prevalence of overweight increased by 41.2% and that of obesity increased by 270%. While it is true that the tendency to overweight decreased 5.1% between 2006 and 2012, the obesity rate only increased 3%.^{1,3}

The prevalence of obesity, according to other authors, has also increased among women in the poor social sectors.⁴⁻⁶ Researches carried out with families from different socioeconomic levels in the metropolitan area of Mexico City, showed that the prevalence of obesity was 22.5% in 1995, and 28.7% in 2002, in a female population of low socioeconomic class, aged 18-69 years.^{7,8} In 2003, a combined prevalence of overweight and obesity was found in a poor rural population

of almost 60% in women and more than 50% in men, with obesity rates of 22.2% for the former and 13.6% for the latter. The conclusions of these studies revolved around the fact that since the 1990s, overweight became more frequent among women in the high socioeconomic levels and obesity tended to be more common in women of low socioeconomic classes, although no significant differences were found between the different strata and with a similar pattern to that observed in developed countries.

The increase of other eating disorders, such as anorexia and bulimia, and consequently certain risky dietary practices (not eating breakfast, reduction diets, consumption of light products, so-called miracles, supplements, among others), have been detected in several surveys.^{9,10} In a study carried out in Mexico City in which data from three different years, 1997, 2000 and 2003,^{11,12} whose main goal was to identify the tendencies associated with type of practices among students, it was observed an increase in the prevalence between 1997 and 2003, that is, from 1.3% to 3.8% in men, and from 3.4% to 9.6% in women. The increase in the frequency of these behaviors in both sexes was observed in all age brackets, particularly among 12 and 13 year-old males and 18 and 19 year-old females.¹¹⁻¹³

Until a few years ago, it was believed that bulimia and anorexia nervosa, and therefore the alimentary practices related to these disorders, only affected individuals of high socioeconomic level, especially in industrialized countries, however, these practices are increasingly more common in developing countries and people with low economic resources.¹⁴

Food, body and image: a new problem

The study of the body has now become a subject of investigation of several fields of expertise. In the social sciences, particularly in the so-called social body theory, the theoretical-methodological approach is relatively new and also is target of interest of various specialties, such as medical anthropology, food anthropology and feminist anthropology, among others.¹⁵ In the biological sciences, the attention is directed mainly towards the body as a recipient of food and nutrition intake and its relation to organic functions.

The present article is based on several premises, aiming at understanding and reflecting on food and body relations, not from a biological, but a sociocultural point of view. Eating is a primary need as the human being has to be nourished to survive; nonetheless, foods, in addition to containing nutrients and energy, have meanings. Human beings choose, rank and classify what they have at hand,¹⁶⁻¹⁸ and in that regard, the sociocultural aspects of the body and food related to the material and symbolic values that fall on the fact of eating and not eating, require particular consideration, when the objective is to understand what the body is from a different angle than that showed by biomedical researches.

Binge eating, eating too little or not eating anything, has often multiple social and psychological meanings beyond the nutritional aspects, just like body weight and body shapes that derive from this acts can give information about eating habits and personality, intentions and even the social status of individuals.^{16,19,20}

Regarding the body image, there are several definitions; however, the present work retrieves the notion proposed by Raich,²¹ that is, the image as a complex psychological construct, which in addition to the body, takes into account the beliefs, emotions, thoughts and behaviors associated with those aspects. In other words, body image is influenced by historical, cultural, social, individual and biological factors that vary over time and encompass multiple dimensions, including gender, identity, self-esteem, among others.²² In particular, the gender perspective is a fundamental tool that assists in an understanding of the construction of masculine and feminine identities. *Gender, as a process of configuration of social practices, directly involves the body, and this does not imply that biological facts determine the social experiences of men and women,*²³ but that “gender exists precisely to the extent that biology does not determine the social feature”.

In recent decades, being thin has become one of the main objectives of the population of developed societies, a goal imposed by new models of life in which the appearance of body image seems to be the only valid synonym of success, happiness and even health.^{14,24} Currently, being obese constitutes a true social stigma and it is evident that the social pressure exerted on overweight and obesity is far more pronounced on women, who feel the pressure for thinness, expressed through a disproportionate emphasis on the body, size and shape.^{4,14,16,19,25}

Several authors emphasize that alterations in body image have long been considered as a main and sometimes exclusive women’s problem, and that this is probably the reason why problems with body image among males have been less studied or are less frequently diagnosed. However, male body dissatisfaction has dramatically increased over the past three decades, from 15% to 43%, and these rates are almost similar to those found in women.^{24,26,27} Body image disturbances in men are more complex than in women,²⁸ for while most women want to be thinner, men want to be thinner but, at the same time, wider than they are, a pattern that has been observed among children of different ages and adult males. This situation also affects those men who participate in sports activities, whether due to the practice of physical activity or to maintain a particular body image.

Fischler²⁹ argues that a historical analysis of body models would show that there has always been a deep ambivalence about fatness and thinness representations and that both have also influenced dietary behaviors in distinct ways. Over the past four decades, a number of changes have been made in relation to the ideal body, both feminine and masculine, in such a way that the desire for health, youth and sexual attractiveness are a powerful motivation against obesity.^{11,15,25,30-33}

The body of the population living in rural areas: a new concern?

Studies carried out in women living in rural Mexico have provided some data on the subject of body perception,³⁴⁻³⁶ and the conclusions, although not definitive, show differences according to the region and the sociocultural and economic situation of the communities, besides the age bracket, which constantly appears as a determinant factor for the rise of obesity. Underestimation is detected in the body perception of normal weight, overweight and obese women, and the overestimation is observed among thin women, that is, one can notice an alteration in the perception of body image and a concern with aesthetics.

However, data derived from studies performed with men living in rural Mexico are scarce. Keijzer and Rodriguez,³⁷ affirm that in the rural context the transition from childhood to adulthood is marked by work rather than by biological development, as is the case of women. The “amalgamation” of the body to the profession or occupation demonstrates the centralization of work in the construction of the male identity. The type of work and the physical wear are added values of the corporal perception, as well as the wider scope of the media, imported audiovisual materials, many of them brought by migrants who return to their place of origin (like magazines, films, pornographic videos, among others) have modified the body perception of men and women, and so did the work prospects.³⁷⁻⁴⁰ In summary, according to these authors, the body is experienced as an instrument to fulfill the historical role of family providers and the construction of masculine identity focuses on work, although also comprises the desire to have an athletic body, and for this reason physical exercises, diets and supplements are used to highlight the beauty.^{39,41}

Based on the above, the present research is a preliminar and distinctive approach towards the reality of men and women living in rural Mexico, in order to find out how they see their bodies, and with the particular aim of analyzing how they are, how they perceive themselves and how men and women living in a rural area want to be. The questions raised were: how do women and men living in rural communities perceive their own bodies and what are the main representations? Are there gender differences on how they are, how they perceive themselves and how they would like to be? Are there body ideals among women and men in these areas, and if so, what are these ideals? And are there differences between men and women in relation to nutritional and health knowledge?

The San Martín Cachihuapan community

The present study was carried out in the San Martín Cachihuapan community, one of the oldest villages located in the municipality of Villa del Carbón, State of Mexico. The last census estimated a total population of 1532 people, of which male and female are 751 and 781, respectively.

A group of indigenous Otomíes came from the north part of the country and settled in this region, but today the population no longer speaks indigenous language. In 2010, a high degree of marginalization in the population was recorded, 6.2% of dwellings had dirt floors, 18.8% did not have a sewer system, 3.4% did not have access to electricity and 9.4% of the houses did not have running water. Approximately 27.4% of the population was not entitled to health services and 8.9% of the population over 15 years old was considered illiterate. The main economic activities are agriculture, livestock and forestry, the latter due to the fact that the community is located in a wooded area with a temperate climate.⁴²

Methodology

All information presented here results from an observational, transversal, descriptive and qualitative-quantitative research carried out in 2015 in the community of San Martín Cachiapan, State of Mexico. As mentioned above, this work constitutes a first approach towards male body perception in a rural area, and the first generic difference found was that several men did not accept to participate, since food and body issues, in their opinion, are only for women. Thus, only 19 men and 30 women between 15 and 65 years old were surveyed.

The information collection instrument was a questionnaire composed of open and closed questions and previously validated in rural populations of the state of Oaxaca. The application of the information collection instrument was conducted in the study participants' homes and anthropometric measurements, weight and height, were performed at the community health center.

In order to accomplish the survey-related objectives of this research and answer the questions, only occupational data were included in this study, as well as interviewees' Body Mass Index (BMI), their self-perception of body image (how they see themselves) and their desire for a certain type of body (how they would like to be). Information on the perceived body image and the desired body shape were obtained by asking women and men to select from nine body figures on the Standard Figural Stimuli scale (SFS) ranging from severe malnutrition (type 2) to obesity 3, the one that, according to their perception, corresponded to their current body image and which one they would like to have (Figure 1).⁴³

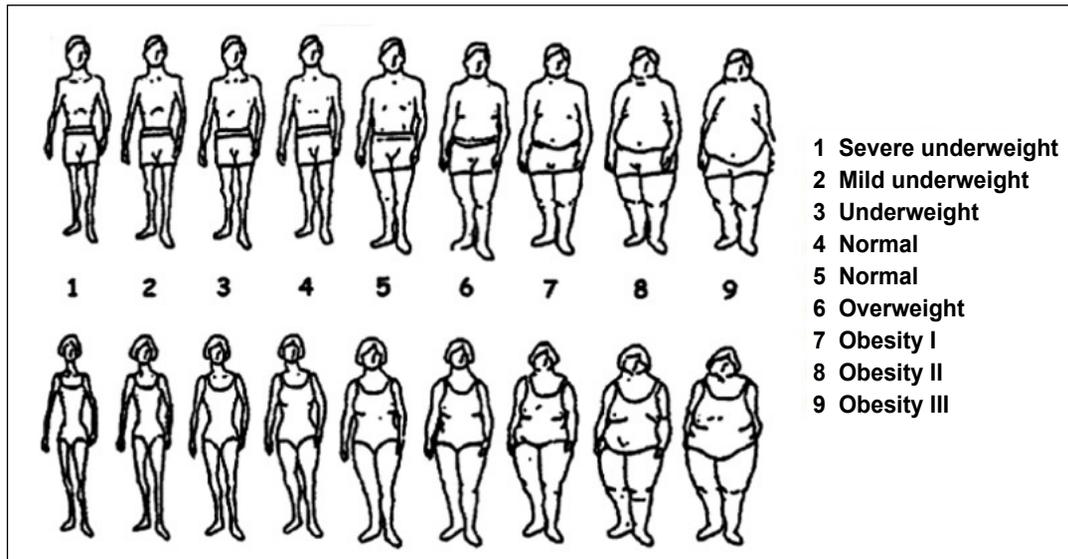


Figure 1. Standard Figural Stimuli (SFS)

Data analysis derived from the composition and the corporal perception was performed using the statistical package SPSS version 21, in which the test of contingency tables was applied to cross-check the variables “how I am” and “how I perceive myself”, “how I am” and “how I would like to be”, and thus to determine coincidence, overestimation and underestimation, and finally the variables “how I perceive myself” and “how I would like to be” to identify a possible body dissatisfaction.

At last, data related to food knowledge, resulting from the open questions, are presented as short narratives grouped according to the selected categories.

Results and Discussion

How men and women are, how they perceive themselves and how they would like to be

Most men affirmed that they used to be public transportation drivers, others were workers, and only two of them dedicate themselves to agricultural activities. The female interviewees revealed that they were mainly engaged in domestic chores within the household, some of them work as domestic servants and others work in the trade sector. Students from both genders also took part in the survey (3 men and 4 women).

Regarding their body composition, the average weight in males was 77 kg with a minimum weight of 59 kg and a maximum weight of 103 kg, and in women, the average was 64 kg, with a range between 48 kg and 80 kg. The male average height was 1.68 m, ranging from 1.58 m to 1.80 m, and in the female interviewees was 1.55 m, with a minimum height of 1.40 m and a maximum height of 1.68 m. In relation to the nutritional status, evaluated through BMI, the average rate was 27.2 in men and 26.7 in women, ranging from 21.1 to 35.2 for the first group and from 21.0 to 34.2, for females, that is, the difference in nutritional status between genders, when using BMI, was minimal. For both men and women, the BMI average indicated overweight and the maximum rates (34.2 and 35.2) revealed a second-degree obesity.

In Table 1, the first column “how I am” (nutritional status of male and female participants measured through BMI) indicate very similar data in both sexes: none of the participants were categorized as underweight and differences in normal weight rates were only 5 points and in overweight rates 6 points, that is, although more women showed a normal weight and men showed overweight, the percentage difference was very small; in relation to obesity, the prevalence was similar for both sexes. It is important to note that even when there were no significant differences between men and women, the available data showed overweight and obesity in the population studied, since the prevalence of the diseases was over 60%, a situation that does not differ from what was reported in the last national food and nutrition surveys conducted in the country.¹ Currently, Mexico, together with the United States of America, are in the top positions of global prevalence of overweight and obesity in adults.

In order to know the differences between “how I am” and “how I perceive myself”, the second column of Table 1 shows that men perceived themselves as thinner and more normal than their actual composition, and those who were classified as obese did not perceived themselves as such. A similar situation was observed among the female interviewees (Table 1), however, according to the female self-perception, “how I perceive myself, even though some women selected thin and normal figures, just above one third chose the overweight silhouette, in other words, some of them perceived themselves with extra kilos. The subject of body self-perception is of great interest, since it is precisely here that one of the main differences between men and women lies: more women perceived that their weight was excessive.

In the third column, “how I would like to be”, it is observed that both men and women would not like to have an overweight and obese body, only one woman chose an overweight figure, which is striking; the body desired was similarly distributed in men, ranging between low and normal weight, and among women, for the same items, given existing differences, one third chose low weight and almost two thirds chose normal weight. Although in smaller numbers, one can affirm that the figure with normal weight was the preferred among men. From the above, it is clear that, like men, women also want to be thinner than they are, since overweight and obesity percentages decreased between “how I am” and “how I look”, and increased the normal and low weight.

(Table 1). The desire for a thinner body became evident in both sexes, thus one may infer that the population of San Martín apparently does not show a contrast attributable to gender particularities.

Table 1. “How I am, how I perceive myself and how I would like to be”, according to a group of men and women from San Martín Cachihuapan, Mexico.

Men						
	How I am		How I perceive myself		How I would like to be	
	N	%	N	%	N	%
Underweight	0	0	10	52.7	9	47.4
Normal	6	31.6	7	36.8	10	52.6
Overweight	10	52.6	2	10.5	0	0
Obesity	3	16.8	0	0	0	0
Total	19	100.0	19	100.0	19	100.0
Women						
Underweight	0	0	5	16.7	10	33.3
Normal	11	36.7	13	43.3	19	63.4
Overweight	14	46.7	11	36.7	1	3.3
Obesity	5	16.7	1	3.3	0	0
Total	30	100.0	30	100.0	30	100.0

Coincidence, overestimation and underestimation of male and female bodies are presented in Table 2, “how I am” and “how I perceive myself”, in Table 3, “how I am” and “how I would like to be” and in Table 4, “how I perceive myself” and “how I would like to be”, which reveals a dissatisfaction. Therefore, the comparison of the results of “how I am” in male interviewees who perceive their own bodies, in Table 2, shows that of the 6 men classified as normal, none matched their nutritional classification with their perception, since all underestimated themselves when choosing the figure with low weight, in contrast to the 11 women who were classified within the normal range, although only half of them matched the variables, i.e., they identified themselves with the figure that corresponds to their reality, on the other hand, 3 underestimated themselves and 2 overestimated their figures when choosing the images that did not correspond to their BMI (see Table 2).

Table 2. Relationship between “how I am” and “how I perceive myself”, in a group of men and women from San Martín Cachuapan, Mexico.

Normal BMI			
6 men		11 women	
None of them matched self-perception and reality	6 (100%) perceived themselves as underweight (they underestimated themselves)	6 (54.4%) Yes, they matched self-perception and reality	3 (27.3%) perceived themselves as underweight (they underestimated themselves) 2 (18.2%) perceived themselves as overweight (they overestimated themselves)
Overweight			
8 men		14 women	
None of them matched self-perception and reality	3 (37.5%) perceived themselves as underweight (they underestimated themselves) 5 (62.5%) perceived themselves as normal (they underestimated themselves)	6 (42.9%) Yes, they matched self-perception and reality	2 (14.3%) perceived themselves as underweight (they underestimated themselves) 5 (35.7%) perceived themselves as normal (they underestimated themselves) 1 (7.1%) perceived herself as obese (she overestimated herself)
Obese			
5 men		5 women	
None of them matched self-perception and reality	1 (20%) perceived himself as underweight (he underestimated himself) 2 (40%) perceived themselves as normal (they underestimated themselves) 2 (40%) perceived themselves as overweight (they underestimated themselves)	None of them matched self-perception and reality	2 (40%) perceived themselves as normal (they underestimated themselves) 3 (60%) perceived themselves as overweight (they underestimated themselves)

Of the eight men classified as overweight, none matched reality with their self-perception, as three of them identified themselves with low weight and five with normality, whereas in the case of the overweight female population, the choice of the figure was very different, since six of female overweight participants matched reality with their bodies, seven underestimated themselves by selecting a thin or normal anatomical model and one overestimated her figure. Finally, of the five males and five females diagnosed with obesity, all underestimated themselves by choosing a thinner figure (see Table 2). In summary, alterations in the body perception affected more than half of the studied population, being more frequent in men than in women. In the case of men, these alterations were due to an underestimation of weight – the totality of the male population perceived themselves weighing less than their current weight –, whereas among women, some cases of overestimation were observed.

Regarding the relationship between the variables “how I am” and “how I would like to be” (Table 3), one must point out to the following findings: of the six men classified as normal, four of them stated that they wanted a normal body normally, that is, they matched the two items, and the other two wanted a low body weight. Among women, of the eleven classified as normal, eight do not want a different body, they feel satisfied with their own figure, and three wanted a low body weight. In relation to the eight men who were considered overweight, none of them feels comfortable with their bodies, five chose a figure with low weight and three the normal silhouettes, whereas among women, only one is satisfied with her appearance, and the others revealed a dissatisfaction by choosing the figure qualified as normal or low weight. The same was observed with the relationship between the variables “how I am” and “how I see myself”: when those who presented obesity, five men and five women, were asked, none of them matched the nutritional situation with their desire, as the ten interviewees selected normal and low weight figures (see Table 3). In other words, about 70% of men and women desire a slimmer body, not necessarily with extreme thinness. The concern with body image is not exclusive to urban women, overvaluations or undervaluations regarding body shape and size and the implications of such fact also begins to appear in women and men living in poor areas of the country, as we can see in this work.

Table 3. Relationship between “how I am” and “how I would like to be”, in a group of men and women from San Martín Cachuapan, Mexico.

Normal BMI			
6 men		11 women	
4 (66.7%) Yes, they matched with their desire	2 (33.3%) would like to have a low weight figure	8 (72.7%) Yes, they matched with their desire	3 (27.3%) would like to have a low weight figure
Overweight			
8 men		14 women	
<i>None of them matched with their desire</i>	<i>5 (62.5%) would like to have a low weight figure 3 (37.5%) would like to have a normal weight figure</i>	<i>1 (7.1%) Yes, she matched with her desire</i>	<i>5 (35.7%) would like to have a low weight figure 8 (57.1%) would like to have a normal weight figure</i>
Obese			
5 men		5 women	
<i>None of them matched with their desire</i>	<i>2 (40%) would like to have a low weight figure 3 (60%) would like to have a normal weight figure</i>	<i>None of them matched with their desire</i>	<i>2 (40%) would like to have a low weight figure 3 (60%) would like to have a normal weight figure</i>

Due to the disparity observed between perception and desire in individuals results in distortion, disagreement and dissatisfaction with their own bodies, besides making them vulnerable to eating disorders, information on the variables “how I perceive myself” and “how I would would like to be” were cross-referenced. Table 4 shows that 12 men and 16 women presented discrepancies between their perception and their desire, which means, in percentage terms, that 63% of males and 53% of females are dissatisfied with their bodies. This scenario emphasizes the high number of male individuals suffering from body image distortion and body dissatisfaction.

Table 4. Relationship between “how I am” and “how I would like to be”, in a group of men and women from San Martín Cachihuapan, Mexico.

Those who perceived themselves as normal			
7 men		13 women	
3 (43%) matched	4 (57%) chose the low weight figure	9 (69%) matched	3 (23%) chose the low weight figure 1 (8%) chose the overweight figure
Those who perceived themselves as underweight			
10 men		5 women	
4 (40%) matched	6 (60%) chose the normal weight figure	5 (100%) matched	
Those who perceived themselves as overweight			
2 men		11 women	
None of them matched	1 (50%) chose the low weight figure 1 (50%) chose the normal weight figure	None of them matched	2 (18%) chose the low weight figure 9 (82%) chose the normal weight figure
Those who perceived themselves as obese			
none		1 woman	
		She did not match	1 (100%) chose the normal weight figure

Some knowledge about body and food

However, aiming at verifying whether the interviewees relate health with what they eat, several questions were asked. One of them was to identify how they feel in relation to their bodies, if they were satisfied with the body image or not, and it was found that more than 80% of men feel “comfortable with their bodies”, in contrast to women, as only 63% of the female interviewees expressed their satisfaction.

No significant differences were found in the reasons given by men and women for their body satisfaction, resignation was an important element as can be observed in the following expressions: “I am the way I am”, “I was born this way”, “I accept myself as I am”. It is noteworthy that only among women dissatisfaction was related to the aesthetic aspects, for example, “I look very fat”, “I’m ugly”, “I do not like how I look”. Fatness is a particular stigma for women. For men, being fat represents a substantial alteration or impairment to bodily functions, as can be notices the following statements: “because I have ailments” and “in fact, it is a limitation to do things and work”.

When they were asked if foods are related to health, the answers were affirmative in both sexes and the most frequently mentioned reasons, among men, were: “foods give energy and vitality”, “foods prevent diseases”, “eating well is the same as feeling fine and having good health”; and women emphasized that “food influences health”, “eating too much makes you gain”, and “eating a little makes you lose weight”.

To know a little more about this issue, they were asked about who is healthier, the fat or the skinny person, and the results showed that the majority of both sexes, 67% of men and 77% of women, believe that thin people are healthier; 16% of both groups stated that both fat and skinny people “become ill the same way”. Nonetheless, while 13% of men consider fat people as healthier, only 3% of women share the same opinion, and the others stated that they did not know. Among the arguments put forward by the male population to justify why obese people are healthier , the following were observed: “because they eat what they have to eat”, “because they eat well”, “result of genetic heritage”, “because they have good eating habits”; in the case of women, without praising thinness, those who associate lean bodies with good health mentioned: “because they have less fat”, “they take better care of themselves, they practice exercises and go on a diet”, “they look better”; and the female interviewee that considered a fat women the healthiest one argued that it is because they have “greater protection”, that is, two or more arguments related to this subject coexist. How the medical discourse and the media have an impact on representations about food, health and the body in the population living in rural areas of the country is a subject that requires further investigation.

Due to the fact that humans tend to classify foods and even consider some of them enemies of overweight and obesity, the present research sought to know the possible differences or similarities between the responses expressed by men and women about this issue. In general terms, there is no difference, since just as the vast majority of the women surveyed blamed industrialized products for causing obesity, men mentioned that the consumption of certain products high in salt, sugar and calories fatten up more and this is evidenced in the following comment: “junk food makes people sick and fat”, i.e. industrialized products. Both sexes also rated other foods like bread, fat, tortilla as fatteners. Only a small percentage of the interviewees attributed negative features to meat and eggs. Regarding less damaging foods, for both sexes, fruits and vegetables are the

principal ones, followed by cereals and legumes and then products of animal origin. In summary, there were no gender differences in relation to the knowledge about food, as well as about diseases caused by “inadequate” foods; for both men and women surveyed, diabetes and high blood pressure are right at the top of the list, followed by anaemia and malnutrition, and then gastric illnesses and obesity, which “have to do with the food that is consumed”. Knowledge about food and body issues does not differ much from what is expressed in medical discourse. In other words, on the one hand, men and women associate the type of food they consume with certain diseases that they may develop, such as diabetes, hypertension, anaemia and malnutrition, and on the other, they consider the relationship between the amount of food consumed and obesity.

Concluding remarks

First of all, it is important to note that in no way the data presented here represent all women and men living in rural Mexico. The information is not the result of a sample, but of individuals from the community of San Martín Cachihuapan, State of Mexico, who, as previously mentioned, agreed to be surveyed and assessed. The number of male participants was lower because of their refusal to answer a questionnaire about food and body and to be measured and weighed. The experience of this research, regarding the acceptance to respond to the questionnaire, showed a gender difference, since on the one hand, food as part of the traditional female gender role is an issue about which only women are concerned,⁴⁴ and, on the other hand, men, as some authors highlight^{40,41} talk about “the” body instead of “my” body. However, due to scarcity of data on body issues of men living in rural communities, the present research may be considered a first step toward understanding what the male population living in these areas perceive and know. Most of the studies on body perception have been of a quantitative nature, different collection instruments have been used, and the individuals selected for the studies are mainly pre-university students, university students and athletes, particularly in urban areas, which makes any comparison an impossible task.

On the information collection instruments, one must emphasize the need to elaborate silhouette drawings more closely related to the rural reality of Mexico, an observation that corroborates the criticisms of silhouette scales made by some authors, as it is a continuous concept evaluated through a limited number of anatomical figures.⁴⁵ Seen in these terms, using figures or anatomical models connected to the reality of study populations, and continuing with this point, is crucial to have a closer approach to body perceptions of the adult, adolescent and children’s population of the Mexican rural environment, since a distortion of this image can encourage the adoption of certain risky food practices. Some data^{35,36} point out to the fact that there are adolescents who suffer from anorexia in these communities, that adult women are concerned with body image and

that some light products, such as soft drinks, yogurts, milk and mayonnaise, as well as others, are considered “miraculous to avoid weight gain”. Also, under the excuse of reducing obesity, several food programs comprise the physical activity practice, particularly geared towards women, so they can continue benefit from it. The prevalence of male obesity is not neglected, however, this condition is more stigmatized in women.

After mentioning some of the limitations of the present study and going back to the results based on the objectives, some general conclusions can be deducted: body perception accounts for the presence of a gender difference, as the male participants interviewed in San Martín perceived themselves as thinner than their actual composition, unlike the female participants, who perceived themselves as overweight, however, one cannot affirm that this is a gender issue, since there is a possibility that the participants, as has happened in previous studies with women from some rural areas, faced with having to choose a figure, hesitate and did not choose the silhouette closest to how they currently perceive themselves. This was observed among women who showed astonishment and hesitated when choosing one of the figures.

The desire for a thinner body became evident in both sexes, which does not show a specific difference related to gender, as well as the alterations in the perception of the body image that did not reveal significant differences; this occurred in more than half of the studied population of both sexes, being more frequent in men than in women. In the case of the male population, the alterations were due to an underestimation of the weight and in that of women, an overestimation was observed. Quantitative studies indicate that men tend to underestimate their weight and although, as already mentioned, comparisons can not be made due to the methodological differences of the studies, data derived from the work carried out in San Martín Cachihuapan open the door for further research in rural communities, using a qualitative approach and under a gender perspective.

However, one matter is still outstanding: the identification and the study of how parameters of the ideal body image for women and men living in situations of social and economic disadvantage and, of course, nutritional disadvantage, are built by the immediate social and cultural group, for example, the original family circle, the health sector and the mass media. Parents and family have the responsibility for transmitting cultural patterns, and through family members the ways of conceiving the body are created and recreated; the expression of the emotions, body contact, body care, aesthetics, body normality and nourishment, and values associated with the body with all its physical and emotional manifestations, expressions of illness, care and feeding, how these patterns are transmitted? This is a subject that requires further investigation, as well as the biomedical discourse that in recent years has changed the epistemological status of obesity, which used to be considered a simple risk factor for a chronic pathology and now is a global epidemic.^{17,18}

The inclusion of body perception and the body image ideals in nutrition and food programs are relevant when one aims at preventing certain disorders such as overweight, obesity, anorexia and bulimia, besides expanding gender-specific meanings ascribed to the acts of eating or not eating certain foods or products “good for body transformation”. It is necessary to address body image from a gender perspective, with the purpose of identifying the similarities and differences between men and women in three of the areas considered crucial for body issues, that is, food, physical activity and aesthetic care.

Collaborators

Juárez AGR and Romo SEPG were involved in the design, analysis, interpretation and final draft of this article. Rosa Cruz SA took part of data collection and information analysis processes.

References

1. Instituto Nacional de Salud Pública. Encuesta Nacional de Salud y Nutrición 2012. Cuernavaca, México: Instituto Nacional de Salud Pública; 2012.
2. Instituto Nacional de Salud Pública. Encuesta Nacional de Salud 2000. Tomo 2. La salud de los adultos. Cuernavaca, México: Instituto Nacional de Salud Pública; 2003.
3. Instituto Nacional de Salud Pública. Encuesta Nacional de Salud y Nutrición 2006. Cuernavaca, México: Instituto Nacional de Salud Pública; 2006.
4. González de León D, Bertran M, Salinas AA, Torre P, Mora F, Pérez Gil SE. La epidemia de Obesidad y las mujeres. *Revista Género y Salud en Cifras* 2009; 7(1):17-29.
5. Arroyo P, Loria A, Fernández V, Flegal K, Kuri P, Olaiz G, et al. Prevalence of pre-obesity and obesity in urban adult Mexicans in comparison with other large surveys. *Obesity Research* 2000; 8(2):179-185.
6. González C, Stern M. La obesidad como factor de riesgo cardiovascular en México: estudio en población abierta. *Inv Clínica* 1993; 45(1):13-21.
7. Instituto Nacional de la Nutrición Salvador Zubirán. Encuesta urbana de alimentación y nutrición en la zona metropolitana de la Ciudad de México 1995. México: Instituto Nacional de Nutrición Salvador Zubirán; 1995.
8. Ávila A, Shamah T, Chávez A, Galindo C. Encuesta urbana de alimentación y nutrición en la zona metropolitana de la Ciudad de México 2002. México: Instituto Nacional de Nutrición Salvador Zubirán; 2003.
9. Unikel C, Bojórquez I, Carreño S, Validación de un cuestionario bree para medir prácticas alimentarias de riesgo. *Rev Salud Publica* 2004; 46(6):509-515.

10. Uribe Merino JF. Las prácticas alimentarias relacionadas con la búsqueda del ideal corporal: el caso de la ciudad de Medellín, Colombia. *Boletín de Antropología Universidad de Antioquia* 2006; 20(37):227-250.
11. Unikel C, Bojórquez I, Villatoro J, Fleiz C, Medina-Mora ME. Conductas alimentarias de riesgo en población estudiantil: datos en población estudiantil del Distrito Federal. *Inv Clínica* 2006; 58(1):15-27.
12. Unikel C, Villatoro J, Medina-Mora ME, Fleiz BC, Alcántar ME. Conductas alimentarias de riesgo en adolescentes mexicanos. Datos en población estudiantil del Distrito Federal. *Salud Mental* 2000; 52(2):140-147.
13. Unikel C, Díaz de León C, Gonzalez C, Wagner F, Rivera JA. Conducta alimentaria de riesgo, síntomas depresivos y correlatos psicosociales en estudiantes universitarios de primer ingreso. *Acta Universitaria* 2015; 25(2):35-39.
14. Gracia Arnaiz M. Els trastorns alimentaris a Catalunya: una aproximació antropològica. Barcelona, España: Generalitat de Catalunya, Secretaria de Juventut; 2007. Col·lecció Estudis, n. 23.
15. Esteban ML. Antropología del cuerpo. Género, Itineraries corporals, identitat y cambio. Barcelona, España: Bellaterra; 2004.
16. Contreras J, Gracia Arnaiz M. Alimentación y cultura. Perspectivas antropológicas. Barcelona España: Ariel; 2005.
17. Gracia Arnaiz M. Maneras de comer hoy. Comprender la modernidad alimentaria, desde y más allá de las normas. *Rev Int Sociol.* 2005; 40:140-182
18. Gracia M. Paradojas de la alimentación contemporánea. Barcelona, España: Icaria; 2006.
19. Contreras J. Introducción. In: Contreras J, compilador. Alimentación y cultura: necesidades, gustos y costumbres. Barcelona, España: Universitat de Barcelona; 1995. p 9-26.
20. Toro J. El cuerpo como delito: anorexia, bulimia, cultura y sociedad. Barcelona, España: Ariel Ciencia; 1997.
21. Raich R. Una perspectiva desde la psicología de la salud de la imagen corporal. *Avances en Psicología Latinoamericana* 2004; 22:15-27.
22. Cash TF, Pruzinsky T, editores. *Body images: a handbook of theory, research, and clinical practice.* New York: Guilford Press; 2002.
23. Connell RW. La organización social de la masculinidad. In: Valdés T, Olavarría O, editores. *Masculinidades: poder y crisis.* Chile: Isis Internacional; 1997. p. 31-48.
24. Toro-Alfonso J, Walters-Pacheco KZ, Sánchez Cardona I. El cuerpo en forma: masculinidad, imagen corporal y transtornos en la conducta alimentaria de atletas varones universitarios. *Acta de Investigación Psicológica* 2012; 2(3):842-857.
25. Pérez-Gil SE. Un problema actual: decidir entre comer y no comer. *Cuadernos de Nutrición* 2009; 32(6):205-212.
26. Schild P. *The image and appearance of the human body.* New York: Int Univ Press; 1950.

27. Garner DM. Inventario de trastornos de la conducta alimentaria (EDI 2). Madrid: Tea Ediciones; 1998.
28. Bergstrom RL, Neighbors C. Body image disturbance and the social norms approach: an integrative review of the literature. *Journal of Social and Clinical Psychology* 2006; 25(9):975-1000.
29. Fischler C. Gastro-nomía y gastro-anomía: sabiduría del cuerpo y crisis biocultural de la alimentación contemporánea. In: Contreras J, compilador. *Alimentación y cultura: necesidades gustos y costumbres*. Barcelona, España: Ediciones Universidad de Barcelona; 2002. p. 357-380.
30. Silberstein B, Perdue L, Peterson B, Kelly E. The role of the mass media in promoting a thin standard of bodily attractiveness for women. *Sex Roles* 1986; 14(9/10):519-532.
31. Gómez E. Equity, gender, and health: challenges for action. *Pan Am J Public Health* 2002; 11(5/6):454-561.
32. Salazar Z. Adolescencia e imagen corporal en la época de la delgadez. *Reflexiones* 2008; 87(2):67-80.
33. Saucedo Molina TJ, Unikel Santocini C. Conductas alimentarias de riesgo, interiorización del ideal estético de delgadez e índice de masa corporal en estudiantes hidalgüenses de preparatoria y licenciatura de una institución privada. *Salud Mental* 2010; 33(1):11-19.
34. Pérez Gil SE, Vega A, Romero G. Alimentación de mujeres en una zona rural: ¿existe una nueva percepción del cuerpo?. *Rev Salud Pública Mex.* 2007; 49(1):52-62.
35. Gil SE, Romero G. Imagen corporal en mujeres rurales de la Sierra Juárez y la costa de Oaxaca: una aproximación nutrio-antropo-lógica. *Revista de Estudios Sociales* 2008; XVI(32):79-111.
36. Pérez O, Estrella D. Percepción de la imagen corporal y prácticas alimentarias entre indígenas mayas de Yucatán, México. *Rev Chil Nut.* 2015; 41(4):385-392.
37. Keijzer B, Rodríguez G. Jóvenes rurales. Género y generación en un mundo cambiante. In: Olavarría J, Editor. *Varones adolescentes: género, identidades: sexualidades en America Latina*. Chile, UNFPA; 2003. p. 33-52.
38. Keijzer B. Hasta donde el cuerpo aguante: género, cuerpo y salud masculina. *Revista la Manzana* 2006; 1(1):137-152.
39. Núñez G. Los “hombres” en los estudios de género de los “hombres”: un reto de los estudios queer. In: Ramírez Rodríguez JC, Uribe Vázquez G, coordinadores. *Masculinidades. El juego de género de los hombres en el que participan las mujeres*. Guadalajara: Plaza y Valdés; 2008.
40. Fuentes A. El discurso sobre la estética del cuerpo de los hombres. In: Ramírez JC, Uribe G. *Masculinidades. El juego de género de los hombres en el que participan las mujeres*. Guadalajara: Plaza y Valdés 2008.
41. Quapper D, Orlando C. O. Cuerpo poder y placer: disputas en hombres jóvenes de sectores empobrecidos. *Revista de Psicología. Universidad Academia de Humanismo Cristiano* 2005; 6(9):71-84.
42. SEDESOL. Catálogo de Localidades. Ciudad de México: 2016. Disponible en: <http://www.microrregiones.gob.mx/catloc/contenido.aspx?refnac=151120024>

43. Rueda-Jaime GE, Camacho PA, Flores M, Rangel AM. Validez y confiabilidad de dos escalas de siluetas para valorar la imagen corporal en estudiantes adolescentes. *Rev Colomb Psiquiatr.* 2012; 40(1):101-110.
44. Pérez Gil-SE, Díez Urdanivia S. El abordaje cualitativo: una alternativa en las investigaciones y acciones de alimentación comunitaria. *Rev. Nutrición Clínica* 2007; 10(1):28-35.
45. Garner RM, Stark K, Jackson NA, Friedman BN. Development and validation of two new scales for assessment of body image. *Percept Mot Skills* 1999; 89(3 Pt. 1):981-93.

Received: April 25, 2016

Reviewed: November 22, 2016

Accepted: January 28, 2017