

## **Representations of Eating Habits: Differences between pre-adolescents and their parents**

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In order to differentiate representations about the eating habits of preadolescents and their parents, a mixed- method study was conducted, involving 248 pairs of pre-adolescents and their parents. The Questionnaire on Physical Activity and Food intake Habits was used to collect the data, which includes an open response questionnaire regarding the representations of eating habits, a quantitative food consumption questionnaire and a dichotomous question about the representation of their food practices. Content analysis of the representations of eating habits of the preadolescents and the parents was carried out. From the emerged categories, chi-squared analyzes were performed to differentiate the representations of preadolescents and their parents regarding food consumption practices and representations of whether they have a good diet. Representations of preadolescents and their parents were similar when referring to eating habits as good nutrition, related to health and traditions. Both scored in a deficient consumption of healthy foods and exceeded the consumption of junk foods, however, more parents referred it than children. Finally, most of them represent their

diet as good. The representations of eating habits are given by the culture, which highlights that interventions must be directed to these more than to the knowledge of how health works.

Eating habits have been studied extensively due to their relationship with health-disease processes, being mainly associated with obesity, metabolic diseases, gastrointestinal diseases and cancer (Alba, 2016, Celik, Yilmaz, Özden, Kotan & Okut, 2015; Laissaoui & Allem, 2016; Tsiountsioura et al., 2014). Most research explores the deficiency or excess of calories and nutritional value of the consumed food and its health outcomes without emphasizing the psychosocial aspects of these processes.

While there are different definitions of eating habits, most health professionals converge on what individual and collective eating behavior is. This includes what, when, where, how and with what, for whom and with whom food is prepared and consumed. And these dimensions are built directly or indirectly as part of sociocultural practices (Álvarez, 2011; Macias, Gordillo & Camacho, 2012).

Eating behaviors are the product of food-related representations that are formed, maintained and changed through the interrelations between health, social interactions and culture. As mentioned by Moscovici (1979, p.12);

"A social representation is traditionally understood as a system of values, ideas and practices with a double function: first, to establish an order that allows individuals to orient themselves and their material and social world: and second, to allow the communication among the members of a community, providing them with a code to name and classify the different aspects of their world and their individual and group history".

In this way, the representations that people have of eating habits gives meaning to the way in which food is chosen, bought, prepared and consumed in different social and cultural contexts, and represented as "good" or "bad", "adequate" or "inadequate", "healthy" or "unhealthy", "delicious", "insipid" or "disgusting", among other endless number of categories

that are based on the knowledge accumulated by the meanings given by communities and cultures to food (Glaveanu, 2009; Jovchelovitch, 2010).

From the standpoint of the theory of social representations, when we discuss knowledge of eating habits we contest the linear and hierarchical transmission of these habits, where health professionals such as doctors, nutritionists, nurses and others, are the (only) generators and carriers of the knowledge of what is healthy and what is not healthy to eat. These professionals are recognized as active actors contributing (or not) to the objectification of food-related representations. However, and at the same time, representations of food are also constituted by the beliefs and experiences of societies regarding food (Jodelet, 2013).

For example, in an Eastern culture a healthy diet is composed of foods of vegetable origin, as well as protein-rich foods such as meats and cereals, eating three times a day and not eating after 6 pm. Unhealthy eating, on the other hand, is represented by hamburgers and fast food, sodas and eating (junk food) between meals (Kolbasin, 2016). In Mexico the social representations of eating habits are different in the urban and rural contexts; in urban contexts eating natural/organic food is effortful. But in rural contexts there are established practices and traditions associated with natural/organic food that have a long history in the community (Kooijmans & Flores, 2014). This evidences cultural/contextual differences and their subsequent influence on the social representations of the same eating habits, even in the same country, but in different contexts

Thus, eating habits are knowledge and practice that are an essential part of people's lives due to their biological function and to their energy and nutritional contribution, but above all because it serves a psychosocial function of performing and maintaining cultural identity and of promoting social interactions. As "identity is a dynamic and social product of the interaction between memory, consciousness and organized construction with the physical and societal structures and influenced by social contexts" (Breakwell, 2010, p. 6.3), social representations about food provide cultural identities, for example, to the mother as a feeder and to the children as the recipients of food.

In the particular case of Mexican culture, the consumption of foods based on corn, rich in fat and accompanied by soft drinks, as is usually done with the family, is now part of the

Mexican identity. Also, the Mexican food culture has gone from a "traditional" model where large families gathered around the table, to a globalized one where fast food is ordered and consumed in the place of work or on the way to work and where celebrations are held in restaurants (Housni, Magaña, Macias, Aguilera & Toro, 2016). These eating habits provide then identity functions and change according to different social contexts. Hence, eating habits will always be associated with group practices in a specific context, through social interactions and influences. A clear example of social influence occurs in adolescents, whose representations about food reflect the co-construction among parents, peers, media and the school (Dárdano & Álvarez, 2011, Howarth, Kalampaliki & Castro, 2011). Part of this cultural identity is observed in the combined prevalence of overweight and obese minors (36.3%) and adults (72.5%) (National Institute of Public Health, 2016).

Thus, some researchers who recognize the role of social influence on food consumption have determined that eating habits are built within the family and are incorporated as habits. These are internalized through family rules on what and when to eat, or through food preferences and refusals of children. They are, then, repeatedly exposed to a series of food behaviors and interactions with their parents that shape their own preferences and eating habits, and this happens particularly with the interaction with the mother. Usually eating habits of children and their parents are very similar. (Castrillón & Roldán, 2014, Macías et al., 2012).

However, it is known that economic factors, changing lifestyles, lack of time to cook, working parents or parent, in the case of single-parent families, and loss of children's perception of parental authority, has made increasingly common for children to be the ones deciding what to eat (Fairbrother, Curtis & Goyder, 2013; Jáuregui, Ruiz, Bolaños & Garrido, 2013).

And also, it has been found that peers play a very important role in the development of eating habits, especially during adolescence. This is when adolescents enter into a different interactional process, because they begin to look for new groups of belongingness. In a study with people between 10 and 17 years old, Stok et al. (2015), found that peers have an active participation in this regard, since peers' attitudes towards eating healthy or unhealthy foods

influenced their intake or non-intake of certain foods. Adolescents seem to seek the approval of their peers in their choice of food.

The media, such as television, social networks and other elements that make up the microsystem of an individual, also strongly influences preadolescents and adolescents. Even though the media promotes a healthy representation of certain junk foods, this is done despite knowing the negative consequences that these bring onto people's health (Rosen et al., 2014; Deliens & Clarys, 2013).

With regard to the relationship of eating habits in schools and educational institutions, recent work by Virtanen et al. (2015) found that the behavior of buying fast food or junk food outside the school was carried out even when the preadolescents had brought home-prepared lunch.

Research seems to support the assumption that children anchor the representations of the family, especially of the parents, with respect to how their eating habits should be, without taking into account other elements of the representation (Batista & Lima, 2014; Cobio & Álvarez, 2015). Likewise, some research adopts a more reductionist approach when relating food habits with the family, the economy, peers or the school, without taking into account the representations of the parental group, or even, of the minors themselves.

This is why it is necessary to avoid the assumptions and impositions regarding the representations of eating habits, specifically when it comes to preadolescents. In this stage in life there starts to be representational objectification with the involvement of many social actors, including parents. This is because representations correspond to the act of thought by which a person relates to an object and that is given in the social, that is to say the thoughts on what food habits that occur in parental interactions mean (Bazán & Miñó, 2013; Jodelet, 1991, cited by Álvarez, 2002). The goal of this paper is to differentiate the representations of eating habits between preadolescents and their parents, where the hypothesis lies in that the representations about the eating habits of the preadolescents are similar to those of their parents.

## METHOD

**Subjects:** A sample of 248 pairs of preadolescents and their parents was selected from 12 public and private elementary schools in northeastern Mexico through a convenience sampling. Preadolescents presented an age range of 9 to 12 years ( $M=10.93$ ,  $SD=0.756$ ), 52.9% were female and 47.1% male, where 3.3% presented low weight, 45% normal weight, 17.5% overweight and 34.1% obesity, according to the Z score and percentile based on sex and age tables given by the World Health Organization (2018). For their part, the parents of these preadolescents presented an age range of between 21 and 56 years ( $M=39.79$ ,  $SD=7.175$ ), 62.3% were female and 36.9% male, where 0.5% presented low weight, the 33.6% normal weight, 45% overweight and 20.9% obesity according to the body mass index classification of the World Health Organization (2006).

**Instrument:** The Questionnaire on Physical Activity and Food intake Habits (Moral, Ybarra, Álvarez, Zapata, & González, 2011), based on the questionnaire Predictors of Health Risk Behavior among Hispanic Adolescents (Czyzewska & Ceballos, 2006) and the Questionnaire of Health Habits (Álvarez, 2002) were used. This questionnaire has demonstrated its reliability and validity to measure eating habits, nutritional knowledge, body image and physical activity in Mexican samples (Moral et al., 2011). From this full questionnaire a subscale of eating habits was taken, which includes a questionnaire regarding the representations of eating habits with 4 items, a questionnaire aiming to describe the alimentary consumption of the previous week, with 29 items, and other questionnaires that are not included in this study.

This subscale yields three scores: (1) a gross score per food item; (2) a gross score per food group: vegetables, fruits, cereals (composed of corn tortillas, flour tortillas, red tortillas, toast, white bread, whole wheat bread, sweet bread, and crackers), legumes (made up of beans, chickpeas, lentils and beans), dairy products (consisting of milk, cheese and yogurt), meat and

fish (chicken, fish, beef, sausages and eggs), fats (made up of butter) and junk food (pizza, hamburgers, hot dogs and corn-based snacks), water, soft drinks and sweetened beverages (made up of soft drinks and sweetened waters) and coffee, which were grouped according to the Food Guide for the Mexican Population (Health Secretary, 2010) and averaged to obtain a daily consumption score, which was obtained after adding the food of each group and dividing them between the 7 days of the week; (3) a standardized score of food consumption according to the parameters for preadolescents and Mexican adults of the Food and Physical activity Guidance (National Academy of Medicine, 2015) which includes the daily food parameters, and from the Official Mexican Standard for the Promotion and Education of Health in Food Matters (NOMPESMA) (Ministry of the Interior, 2012) which includes the daily parameters for drinks.

For preadolescents (9-12.11 years), the total of portions adequate to be consumed in a day of each food group are: vegetables 3, fruits 2, cereals 7.5, legumes 1.5-2, dairy products 2, meat 2.5-3, fat 4, junk food 0, water 8-12, soft drinks and sweetened waters 0 and coffee 1. For parents, the total of portions adequate to be consumed in a day of each food group are: vegetables 3, fruits 2-3, cereals 7.5-9, legumes 1.5-2, dairy products 2, meats 2.5-3.5, fat 4-5, scrap 0, water 3-8, soft drinks and sweetened waters 0 and coffee 0-2. Having a consumption below the recommended portions for preadolescents and for adults in each food group implies a deficient consumption of it, as well as having a consumption greater than the recommended portions indicates an exceeded consumption of the food group.

**Procedure:** With the aim of differentiating the representations about eating habits of preadolescents and their parents, a mixed study was carried out, which according to the categorization of Creswell (2014), is one in which one methodology serves to support the other, in this case, we will first pursue a qualitative analysis using a phenomenological design that describes the meanings and lived experiences of the concept under study by the participants (Creswell, 2014). This will gather a compilation of the representations regarding the eating habits, good food intake, and the foods that integrate a good food intake on the part of the preadolescents and their parents. The quantitative analysis will aim at describing and

comparing the differences in representations about dietary habits of the preadolescents and their parents.

In order to do this, we requested participation consent to primary schools. Once the consent was obtained, the parents of the sixth year students were asked to attend the school to sign the informed consent, applying the questionnaire individually and interviewing those parents who gave their consent.

The application of the questionnaires with the preadolescents was carried out individually as an interview, simultaneously with the application of the parents in a different room, providing the questionnaire only to those parents signed informed consent and who agreed to participate.

**Analysis:** For the qualitative data a content analysis was carried out for the open questions, categorizing their answers by semantic registration units, that is, it was counted each time a semantic unit belonging to each category was presented (Bermúdez, 1982). The categories were elaborated according to the rule scheme of Olabuenaga (1996, cited by Andréu, 2000), where unique criteria determined by two expert judges were used. Likewise, the categories were nominal, fulfilling the requirements of exhaustiveness, being mutually exclusive, being significant, clear and replicable. After the elaboration of categories by each expert a total of 12.8% of discrepancies in the categories was obtained, that were eliminated, leaving only those categories in which there was a total agreement between both experts.

For the quantitative data percentages, ranges and means were obtained to describe the sample. Also, in order to differentiate the representations of the eating habits of the preadolescents and their parents, contingency analysis with chi-square was carried out, (1) to contrast the categories that arose from the content analysis between preadolescents and their parents, (2) to identify if there are differences in the consumption of both groups, and (3) to identify if there are differences in representing their diet as a good one or not.

## RESULTS

Eating habits are represented by the preadolescents as the practice of a good diet, where the minors made reference to the type of diet and the times during the day in which they are consumed to have an adequate state of health. The role of the family group was also mentioned in the description of their diets.. And finally as knowledge about food, about what to eat and the level of importance they have in people.

Table 1. Content analysis of preadolescent representations regarding their eating habits, good nutrition and good food

<b>What are your eating habits for you?</b>	
Good diet	"eat well", "eat balanced", "eat at appropriate times"
Health	"good health"
Traditions	"the traditions of the family", "the way a person usually feeds", "someone's diet"
Food knowledge	"knowing how to eat", "they are very important", "knowing what to eat"
<b>What is having a good diet?</b>	
Health	"take care of health", "eat well, healthy"
Balance and variation	"have a balanced diet", "eat what the plate of good food says", "eat everything", "eat fruits and vegetables"
Respect portions	"eat the necessary"
<b>What foods includes a good diet?</b>	
Fruits, vegetables and other food groups	"fruits, vegetables and meats", "fruits, vegetables and cereals", "fruits, vegetables, legumes"
Fruits and vegetables	"fruits and vegetables"
All food groups	"all food groups"

Regarding what preadolescents represent to be a good diet, they referred to acts of healthy eating, as well as the balanced and varied consumption of food. For them, a balanced diet is governed by the rules of the healthy eating plate, where all kinds of food are included, especially, fruits and vegetables. Also, a good diet is eating only what is necessary.

Furthermore, when asked about what food is included in a good nutrition, the preadolescents responded that these are represented with the consumption of fruits, vegetables and some other food groups, such as meat. However, for some participants good food is represented only by the consumption of fruits and vegetables, while other participants have the representation that good food supposes the integration of all food groups.

Table 2. Analysis of the content of the representations of the parents regarding their eating habits, good nutrition and food of good nutrition

<b>What are your eating habits for you?</b>	
Health	"eat healthy", "healthy life and health"
Traditions	"traditions, the way people eat", "someone's common diet", "traditions", "what we commonly eat"
Good diet	"type of food and adequate schedules", "eat well", "balanced diet"
Food knowledge	"are important in life"
<b>What is having a good diet?</b>	
Balance and variation	"eat balanced", "eat varied from each group of foods", "consume the dish of good eating"
Health	"consume nutritious foods", "eat well, healthily", "take care of one's health"
Time management	"eat at your hours"
Respect portions	"portions and adequate amounts"
<b>What foods includes a good diet?</b>	
Fruits, vegetables and other food groups	"fruits, vegetables and meats", "fruits, vegetables and cereals", "fruits, vegetables, legumes"
All food groups	"all food groups"
Fruits and vegetables	"fruits and vegetables"

For parents, eating habits were mainly represented by their effects on health, they also have the representation that eating habits are a product of tradition of a common diet. Eating habits are also represented by good nutrition, like eating at appropriate hours, eating well and in a balanced way, and recognizing the importance that nutritional knowledge has on people's lives.

Regarding the representations of what is a good diet, the parents referred to the balance and the variability of food consumption. They represented a good diet with its effects on health, eating on proper hours when eating and respecting the appropriate portions and amounts for each person.

When asked about the foods that make up a good diet they mentioned the consumption of fruits, vegetables and other food groups, such as meat, cereals and legumes. The same way

with preadolescents, for the parents, a good diet was understood as either consuming all food groups, or as only fruits and vegetables.

Table 3. Contingencies of the representations about the codified eating habits of preadolescents and their parents

<b>What are your eating habits for you?</b>	Pre-adolescents (n=214)			Parents (n=212)			Total <i>f</i> (%)
	<i>f<sub>o</sub></i> (%)	<i>f<sub>e</sub></i>	SRESID	<i>f<sub>o</sub></i> (%)	<i>f<sub>e</sub></i>	SRESID	
Good diet	108 (50.5)	83.9	2.6	59 (27.8)	83.1	-2.6	167 (39.2)
Health	34 (15.9)	59.3	-3.3	84 (39.6)	59.3	3.3	118 (27.7)
Traditions	45 (21)	55.8	-1.4	66 (31.1)	55.8	1.4	111 (26.1)
Food knowledge	27 (12.9)	15.1	3.1	3 (1.4)	15.1	-3.1	30 (7)
							p<.001

Significant differences were found (p<.001) between preadolescents and their parents with respect to what their eating habits represent. On the one hand, preadolescents represent a higher percentage of their eating habits as a ‘good diet’ (50.5%), followed by ‘tradition’ (21%), ‘effects on health’ (15.9%) and finally ‘knowledge of food’ (12.9%), on the other hand, parents represent a greater percentage of eating habits as ‘effects on their health’ (39.6%), followed by ‘traditions’ (31.1%), ‘good diet’ (27.8%) and ‘knowledge of food’ (1.4%).

Table 4. Contingencies of the representations on good coding of preadolescents and their parents

<b>What is good diet?</b>	Pre-adolescents (n=208)			Parents (n=171)			Total <i>f</i> (%)
	<i>f<sub>o</sub></i> (%)	<i>f<sub>e</sub></i>	SRESID	<i>f<sub>o</sub></i> (%)	<i>f<sub>e</sub></i>	SRESID	
Health	122(58.7%)	109.8	1.2	78(45.6%)	90.2	-1.3	200 (52.8)
Respect portions	9 (4.3)	6.6	.9	3 (1.8)	5.4	-1.0	12 (3.2)
Balance and variation	77 (37)	87.3	-1.1	82 (48)	71.7	1.2	159 (42)
Time management	0	4.4	-2.1	8 (4.7%)	3.6	2.3	8 (2.1)
							p<.001

We found significant differences ( $p \leq .001$ ) regarding the social representations that preadolescents have about good nutrition, most of them considered that it is ‘reflected in their health’ (58.7%), followed by ‘good nutrition is the balance and variation between foods’ (37%) and finally ‘respecting portions of the food’ (4.3%). On the other hand, parents represented good nutrition mainly as ‘balance and variation in food’ (48%), followed by how it is reflected in their health (45.6%), ‘managing food intake times’ (4.7%) and finally ‘respecting the portions of the food’ (1.8%).

Table 5. Contingencies of the representations about foods that includes a good codified diet of preadolescents and their parents

What foods includes a good diet?	Pre-adolescents (n=237)			Parents (n=222)			Total <i>f</i> (%)
	<i>f<sub>o</sub></i> (%)	<i>f<sub>e</sub></i>	SRESID	<i>f<sub>o</sub></i> (%)	<i>f<sub>e</sub></i>	SRESID	
Fruits and vegetables	82 (34.6)	60.4	2.8	35 (15.8)	56.6	-2.9	117 (25.5)
Fruits, vegetables and some other food group	105 (44.3)	130.6	-2.2	148 (66.7)	122.4	2.3	253 (55.1)
All food groups	50 (21.1)	46	.6	39 (17.6)	43	-.6	89 (19.4)
							$p \leq .001$

Even when the same categories emerged between preadolescents and their parents, differences ( $p \leq .001$ ) could be observed in how these foods are included in a good diet. The preadolescents represent this to good food intake mainly with the consumption of fruits, vegetables and some other food group (44.3%), followed by the consumption of fruits and vegetables (34.3%) and finally by the consumption of all the food groups (21.1 %). For their part, parents represent good nutrition mainly with the consumption of fruits, vegetables and some other food groups (66.7%), followed by the consumption of all food groups (17.6%) and finally by the consumption of only fruits and vegetables. (15.8%).

Table 6. Continues of food consumption in the last month of preadolescents and their parents

Alimentary groups	Pre-adolescents $f_o(\%)$			Parents $f_o(\%)$		
	D	A	E	D	A	E
Vegetables	153 (67.4)	74 (32.6)	0	159 (70)	68 (30)	0
Fruits*	140 (57.9)	102 (42.1)	0	163 (67.1)	80 (32.9)	0
$f_e(\text{SRESID})$	151.2(-.9)	90.8 (1.2)		151.8 (.9)	91.2 (-1.2)	
Cereals	195 (100)	0	0	193 (99)	2(1)	0
Legumes	151(68.3)	31(14)	39 (17.6)	147 (66.5)	39 (17.6)	35 (15.8)
Dairy products	173 (86.9)	26 (13.1)	0	173(86.9)	26 (13.1)	0
Meats	150 (88.2)	20 (11.8)	0	167 (98.2)	3 (1.8)	0
Fat	212(94.2)	13(5.8)	0	212(94.2)	13(5.8)	0
Scrap	0	7(3.3)	202(89)	0	17(8.1)	192(91.9)
Water	69(29)	169(71)	0	54(22.7)	184(77.3)	0
Soft drinks and sweetened waters	0	5(2.2)	222(97.8)	0	2(.9)	225(99.1)
Coffee	0	231(100)	0	0	231(100)	0

D: Deficient consumption in the month, A: Adequate consumption in the month, E: Consumption exceeded in the month. \*  $p \geq .05$

Regarding the consumption of vegetables, most preadolescents and their parents have a deficient consumption, where 32.6% of preadolescents and 30% of their parents had an adequate consumption of vegetables.

In the case of fruit consumption, the majority of preadolescents and their parents have a deficient consumption during the month, however 42.1% of the minors have an adequate consumption, compared to 32.9% of their parents.

In the consumption of cereals, 100% of the preadolescents had a deficient consumption, close to 99% of the parents with this level of consumption. Regarding the consumption of legumes, most preadolescents have a deficient consumption, followed by an exceeded consumption and only 14% presented an adequate consumption, while the majority of the parents have a deficient consumption of legumes, followed by an adequate consumption (17.6%) and finally an exceeded consumption of these.

Regarding milk consumption, both the preadolescents and the parents showed a deficient consumption, where only 13.1% of the children and their parents reported adequate consumption. Likewise, in the consumption of meat, the preadolescents and their parents presented in their majority a deficient one, in which 11.8% of the minors and 1.8% of their parents scored with an adequate consumption of meat.

Regarding the consumption of fat for both preadolescents and their parents, they showed a deficient consumption, and 5.8% of the minors and their parents reported an adequate consumption of fats. On the other hand, in the consumption of junk food the majority of preadolescents and their parents have an exceeded consumption, where 3.3% of the preadolescents and 8.1% of the parents present an adequate consumption.

In the consumption of liquids most preadolescents have an adequate consumption of water (71%), like their parents (77.3%), while the rest presented a deficient consumption. On the contrary, the majority of preadolescents and their parents presented an excessive consumption of soft drinks and sweetened waters, where 2.2% of the minors and 0.9% of the parents presented an adequate consumption. Finally, the total number of preadolescents and their parents has an adequate consumption of coffee.

Table 7. Analysis of frequencies and percentages of preadolescents and their parents and their representation about whether they have a good diet

Variable	Pre-adolescents (n=232)	Parents (n=241)
Papers on Social Representations, 27 (2), 4.1-4.23(2017) [ <a href="http://psr.iscte-iul.pt/index.php/PSR/index">http://psr.iscte-iul.pt/index.php/PSR/index</a> ]		4.14

	<i>f</i> (%)	<i>f</i> (%)
<b>Do you have good nutrition?</b>		
Yes	190(81.9)	165(69.3)
No	42(18.1)	73(30.7)

It can be seen that the majority of preadolescents (81.9%) and their parents (69.3%) consider that they have a good diet, while 18.1% of the children and 30.7% of the parents answered that they do not believe they have a good diet.

## DISCUSSION

Eating habits were represented by preadolescents as eating a good diet that promotes health, and was presented in the everyday as a way of life. Likewise, some represented these as knowing what to eat, and its importance in life. For the parents, the eating habits are represented by the healthy food intake as part of tradition. These categories were similar to the results of a previous quantitative study about the dietary habits of minors (Cobio & Álvarez, 2015), based on the Food Consumption Frequency Questionnaire (Coromoto et al, 2011), where the predominant representations were that eating habits are the care of food and the practice of health care through food.

Even when the same categories emerged in preadolescents and their parents when representing eating habits -which evidences the constructions that arise from the interaction of both at different times -it was observed that preadolescents more frequently represent eating habits like a good diet and their nutrition knowledge, while their parents represent them mostly based on health status (Dárdano & Álvarez, 2011).

This is what Glaveanu (2009) and Jovchvelovitch (2010) refer to as meanings based on the accumulated knowledge of cultures, as in the case of preadolescents, who attend the last year of primary school, and are surrounded by brief and abstract messages about what is acceptable and not acceptable to eat. Firstly, they represent the eating habits in a positive evaluation,

without identifying the "bad" things that they eat daily - that could also be considered as habits, but are not - ; secondly, because they are learning about lifestyles and on an abstract level, this happens because preadolescents are not responsible for all of what they eat, The declarative knowledge about food, coming from the health authorities, is not lived totally in practice, because preadolescents do not have total freedom in choosing their own meals. This procedural knowledge is surrounded by the uses and traditions of the culture that include the influence of parents, peers, educational authorities, media and other family members (Jodelet, 2013).

, Parents' understandings regarding eating habits, in turn, reflect their own health experiences. This is probably because they have experienced the immediate consequences of choosing certain improper foods whose body cannot digest, or even some may have personally experienced the long-term consequences of consuming high-calorie or high-fat foods, or have witnessed through a family member.

By deepening representations on what is meant as good nutrition, both preadolescents and their parents identified evidence in health outcomes when there is a balanced and varied food options and portions. Parents added the factor of managing meal times. Both groups represented the consumption of fruits, vegetables and some other food groups as a good diet, however, some preadolescents have the representation that only fruits and vegetables are part of good nutrition and another smaller group considers that all food groups are part of a good diet. Like the categories that emerged in this research, in the study by Cobio & Álvarez (2015) they concluded that beliefs about what a good diet entails includes a set of thoughts regarding food groups, portion sizes and meal times. This confirms the aforementioned, showing that representations about eating habits and good nutrition are given in the interaction between science and common sense, since the mix between personal, family and educational experiences is manifested in their representations (Jodelet, 2013).

Seeking to differentiate more accurately the representations of eating habits of preadolescents and their parents, they were directly asked what they used to eat, finding significant differences between the two in the consumption of fruits, where parents had a poorest fruit consumption compared to preadolescents. Even with this, we observed a general tendency to

have inadequate eating habits in both preadolescents and parents, since most referred to a deficient consumption of vegetables, fruits, cereals, legumes, dairy products, meat and fat during the month, while the majority showed excessive consumption of junk food, soft drinks and sweetened water during the week. These results agree with those published by the last National Health and Nutrition Survey (National Institute of Public Health, 2016) that provides statistics of the Mexican population, where adults and schoolchildren have a higher consumption of non-recommended foods such as snacks, sweets, desserts and sweetened drinks compared to the consumption of fruits and vegetables.

In order to analyze this, it is necessary to use the parameters given by the National Health Agencies, which establish standardized food measures according to age and size (National Academy of Medicine, 2015; Ministry of the Interior, 2012). Also, we confirm that there is shared knowledge, provided by common sense, that minors should require more dietary attention, possibly this is why it is them who have more consumption of what they call good nutrition food; such as fruits, vegetables and other food groups. However, we cannot ignore the similarity in the eating habits between preadolescents and their parents, which, as Castrillón and Roldan (2014) mention, take place to the extent that the father-child-meal interactions are daily, and finally, if the parents reject or accept certain foods, these will become family norms too, so the child internalizes them in their representations and enacts them through their habits.

However, these results show excess consumption of foods with high caloric content such as junk food and soft drinks in preadolescents and their parents. These food groups are made up of fast food such as pizzas, hamburgers, corn-based snacks, sweets, cola or flavored drinks, processed and sweetened juices that, according to their own constructions and health system constructions, are not part of a good diet. This pattern of food consumption can be explained by what Fairbrother and colleagues (2013), and Housni and colleagues (2016) highlighted, namely that changes in lifestyles and lack of cooking time lead to new types of food consumption. We now witness the transition from the traditional model of Mexican food, one in which the family gathers at the table and shares food based on corn and cola, to a more globalized model, governed by the consumption of fast food from franchises. Lack of time to

prepare homemade food is probably the reason why families have adopted the ‘fast-food’ alternative. But this is not the only reason - the consumption of fast food from franchises as part of Mexican eating habits is also influenced by the media, which launches messages that generate positive representations related to the consumption of these foods (Rosen et al., 2014). So, in a way, compensatory representation of food might be carried out, to justify the consumption of junk food. Even though it is acknowledged that junk food are not good for your health, it is what it is accessible according to their lifestyle, and the media seems to show the well-being factor these foods might generate. This may be a reason why this category of food might be reclassified as adequate. However, it should be explored in future research how representations of the consumption of junk food and soft drinks occur, since today they are part of the overweight and obesity crisis in Mexico.

Furthermore, when preadolescents and parents were asked whether they considered they had a good diet, both responded that they did. A higher percentage of preadolescents responded this way, compared to their parents. This emphasizes the aforementioned, because their representations show at cognitive, behavioral and interactional levels that what they eat is part of a good diet. Preadolescents presented their habits as adequate, as well as their parents, although some of them recognize that they do not have adequate habits (Breakwell, 2010). This is interesting because national health agencies have indicators that say otherwise, hinting at how an identity of perceived healthy food habits continues to govern the food culture in Mexico.

With these conclusions in mind we wish to highlight that these results cannot be generalized to the entire Mexican population since some of the limitations of the study were that the sample corresponded to the metropolitan area of Monterrey, in the northeast of Mexico, and, as recognized, not all participants wanted to share their answers in the interview.

Finally, we consider that there is still work to be done at the cultural level, so that health professionals and health agencies have a greater understanding of social representations about food. It is only from the study of social representation processes that agencies and institutions can induce messages adapted to the Mexican food culture allowing the reconstruction of these, to incorporate, to a greater extent, the health guidelines they aim to promote. As seen in

the sample of this study, the majority of preadolescents and their parents have a non-normal BMI exceeding the national average. 51.6% of the preadolescents presented excess weight, while the national prevalence of overweight or obesity for this group is 36.3%; and 65.9% of the parents presented excessive weight, while the national average is 72.5% (National Institute of Public Health, 2016). These are worrying figures considering the overweight and obesity crisis in Mexico. In this study we tried to explore the important role parents play in shaping children's, and later, preadolescent's eating habits. If nothing is done in time preadolescents could reach a similar statistic to that of their parents.

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