

Children and Parents' Perceptions of Family Functioning Relating to Childhood Obesity

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Abstract

The aim of this study was to describe the perception that children and their parents have about the family functioning relating to childhood obesity. A qualitative study, based on the family systemic theory, was developed. The participants were four children between 10 and 13 years old, with diagnosed obesity, overweight and normal weight, and five of their parents (four females and one male). The techniques used were semi structure interviews, which were audio-taped and transcribed to an electronic format. A thematic content analysis was applied, obtaining six categories: communication, beliefs about weight and body image, beliefs about food, family patterns, controlling eating and attempted solutions. The findings suggest the existence of paradox communication in the families, with contradictory and ambiguous instructions about the eating behavior of the child; beliefs about an ideal weight and type of body for children and adults; ideas about the nutritional qualities of the food that classify them as healthy or prejudicial; family norms that differ according to the role of who buys, cooks or allows the ingest of specific foods; children referring difficulties to control the food intake, while the parents point out that someone else is responsible for that lack of control; also, some strategies that the family has tried unsuccessfully to control the children weight were mentioned, such as diet or nutritional treatments. In summary, we conclude that the perception of childhood obesity is shared by parents and children, where the family interactions emerge as an element that maintains the children obesity having a lack of understatement about the necessary actions for the children's healthy development.

Keywords

Childhood Obesity, Perception, Family Systemic Theory, Children

1. Introduction

Obesity is defined as the abnormal or excessive accumulation of body fat that can represent a danger for health, being one of the most prevalent non communicable diseases at a worldwide level (World Health Organization, 2016). It has become one of the most important health problems because of its association with several physical, psychological, social and economic repercussions for the person and the countries (Liria, 2012). Among this worldwide problem, childhood obesity is a topic that has gain a lot of attention, given that the scientific evidence identifies it as a risk factor for the development of comorbidities such as type 2 diabetes (De Onis, Blössner & Borghi, 2010). At a national level, the National Health and Nutrition Survey, 2012, showed among its results a prevalence of 26% of overweight and obesity among children in Mexico, being important to contrast this result with the data from the same survey back in 1999, where the prevalence was 18.4% (National Public Health Institute, 2012).

Several researches had tried to establish the cause and treatment of obesity in the disproportion between the food intake and the caloric expenditure, both in childhood and adulthood (Hollis, 2005). However, the role played by the family in this phenomenon has been overlooked, when it is not taken into consideration that some behaviors, structure and family dynamics could represent an obesogenic risk present since childhood.

Talking about the perception of the obesity phenomenon in childhood, different studies have found that it is conceptualized as a negative condition by children and teenagers. Collipal et al. (2006) interviewed teenagers from first and second grade of middle school in Chile, finding that obesity is described using words such as: fatness, fat, overweight, discrimination, depression, disease, anxiety, problems, low self-esteem, junk food and a sedentary lifestyle. Meanwhile, in a study developed in Mexico City with children between 6 and 12 years old, the obesity was defined as an illness that impacted health and social performance, being noticeable the high proportion of school children that did not identify obesity as a factor that promoted the development of adverse consequences that affected the quality of life (Rendón, Rosas, Villasís, & Pérez, 2014).

López, Neumark, Hannan, Fauquet, Loth, & Sánchez (2012) highlight the need of studying the existing differences around the obesity phenomenon between different cultures. The authors developed a study aimed to identify the differences in the weight control behaviors between adolescents from Spain and North America, the findings indicate that there are significant variations in the behaviors and beliefs about health among the cultures, considering that the non-healthy eating habits and the weight control strategies were observed more frequently in the occidental population. Meanwhile, in Guadalajara, Mexico, the belief that “skips meals” helps to regulate the weight in adolescents (Macedo, 2008).

The role played by the family in the childhood obesity phenomenon has been studied in some research, aiming to find the differences between the children and parents' perceptions of obesity, and the family factors that relate to this problem. Nuñez, Campos, Alfaro and Holst (2013) developed an ethnographic study in Costa Rica that aimed to identify the beliefs about obesity in parents and their school aged children, finding that for the children, the obesity was not considered as a disease, but more as a body type, describing it as a not desirable condition, just like the parents, who differ from the children by defining the obesity as an illness, an esthetic and health problem. The family factors that associate with the development of childhood obesity are the family functionality and the mother's school level, observing that the children that live in family environments that include violence or conflicts, tend to be more likely to develop obesity in the future. González, Aguilar, García, García, Álvarez, Padilla and Ocete (2012) has identified some obesogenic family characteristics, such as not healthy eating habits, preference for sedentary activities, long exposure to television and that both parents work outside the home, which favors that the children are left under the care of persons that do not have constant surveillance of the child's eating habits.

The habits, customs and preferences about the food intake are tightly related to the roles, activities, limits and expectations that the parents have about the children. The new family life style, where the mothers have become more involved in the labor world and more active in the family planning, tending to decide to have a reduce number of children, has propitiated an overprotection of the children, either because the parents seek to satisfy all their needs or because of the guilt feelings generated by having to leave them under the care and protection of someone else (González, Aguilar, García, García, Álvarez, Padilla, & Ocete, 2012). Given that, although it is not applicable for every family, in the majority of the cases the discussions and even negotiations about the eating habits between parents and children are allowed, being an important number of times that the children get to eat what they want through persistence or manipulation (Domínguez, 2008; González, Aguilar, García, García, Álvarez, Padilla, & Ocete, 2012).

It's through the food availability in the home, the family traditions and the publicity of the media that the child will acquire its eating habits, representing an important risk factor for obesity the high caloric content food existing at home and the fostering of its consumption along with the transmission of erroneous information or nutritional concepts by the parents (García, 2008; Suárez, 2009; González, Aguilar, García, García, Álvarez, Padilla, & Ocete, 2012). Another explanation for the obesity and eating problems related to the family dynamics points to the existence of double bind messages, where in the family speech it's possible to identify messages such as "it's better to be thin", while in the nonverbal language, actions such as refilling constantly the pantry with food that contradicts the message of the importance of healthy habits, creates a new speech that says "it's not allow to waste food", situation in which the obese person is immerse in a series of contradictory and impossible to reach simultaneously messages (Cirillo, Selvini, & Sorrentino, 2000).

The interactions that the family establishes with the food are an important part of every person life. Ceberio, 2004, mentions that when a family norm is set based on the

foods, the eating behavior acquires new meaning and constitutes itself as a meeting point for the family, being a moment in which is possible to detect more easily the functions that the members play and the code that rules the family, the alliances, coalitions, mandates, beliefs, hierarchy, etc.; the meals can get to constitute one of the most important family rites, to the point in which no member is allowed to miss the event, being considered as a transgressor act that generates anger, guilt and reproaches by the other family members. The importance of the family dynamics in the obesity phenomenon is really significant, given that there is not possible to have an obese member without a codependent subject, that functions as supervisor and punisher, while making it as a facilitator that fills the pantry, prepares and feeds the obese person, needing each other to maintain the problematic situation.

The social events can be another source of food and conflict that generates and/or maintains the obesity, where the person is required to developed different social skills to be able to resist the need to seek food to reduce the anxiety, given that instead of interact or get to know people, the tendency is to focus in the consumption of a great amount of food and/or snacks.

One of the factors that has been identify as a protector element against overweight and obesity is that the child eats accompanied by an adult while eating, considering that the adult can function as a regulator of portions and help with the food selection, finding that the children that eat by themselves have a bigger risk to gain weight that the ones that eat with the family (González, Aguilar, García, García, Álvarez, Padilla, & Ocete, 2012).

Currently, the prevention efforts against overweight and childhood obesity have different approaches, some are applied at a school level, at a community level, at a family level and another set of strategies included all the systems combined, of which the last ones are reported to be more effective (Wang et al., 2013). However, the set of interventions that include the family are usually focused in the change of lifestyle habits, leaving aside the family functioning and dynamics (Ho et al., 2012).

Therefore, considering the important role that the family functioning plays in the child obesity phenomenon and the fact that it has been overlooked in most of the research that relates to this topic, the aim of this study was to describe the perception that children and their parents have about the family functioning relating to childhood obesity.

2. Methodology

2.1. Participants

The informants were four children between 10 and 13 years old, along with five of their parents (four females and one male). The children were referred by the school nutritionist, who performs an annual body measurement to determine the Body Mass Index (BMI) of all the school students. Based on that measurement, the participant children were categorized as obese, overweight and normal weight. The children that at the time of the data collection were receiving medical treatment for obesity, overweight or un-

derweight were excluded, along with the ones that had any record of organic, metabolic, neurologic, psychiatric or mental alterations or diseases.

The children and their parents were selected through a convenience sampling, including the informants with a snowball sampling technique, until we reached the data saturation point.

2.2. Research Setting

The research was developed in the facilities of one urban public elementary school in Guadalajara, Jalisco, Mexico. In this country, the elementary school level includes six grades, in which the children attend from six to 12 years old. The school works in a two-shift system, where one group of students and teacher attend the school during the morning and a different group works in the afternoon.

2.3. Techniques

The technique used was a semi structured interview. An interview guide was elaborated, consisting in a set of open questions destined to identify the structure and family functioning that relates to the generation of obesogenic risk, seeking to identify them through the children and parents observed behavior. The interview guide included questions such as: Who decides what should be eaten at home?; Who does the food shopping?; How do you think the ideal weight should be for your family members?; What foods should your family eat?; Who decides the food portions that should be eaten by each family member?; There is something that you do at home to maintain an ideal weight?

2.4. Data Collection Procedure

The names and school grades of the children with a BMI classified as obesity, overweight and normal weight in the biannual evaluation developed by the school nutritionist were provided. The parents of 30 children were contacted through different methods such as phone calls, writing messages delivered by the children and personal contacts during parent-teacher conferences. An initial meeting was developed with the recruited parents, in which the aim of the research was explained, along with the data collection procedure, which was going to consist of three interview sessions (one with the child, one with the parents and one with all of them together), that were going to take place in the school facilities, also, the information regarding the ethics aspects was explained. Of the parents recruited, some of them did not agreed to participate in the research and other cases were excluded because of the existence of medical or mental diseases in the children. Finally, the parents of four children decided to participate and maintain in the research.

A total of 12 interviews were performed, four with the minors, four with the parents and four with the children and their parents together. Each session lasted around 45 minutes being audio recorded. After these interviews we reached the data saturation point.

2.5. Data Analysis

The interviews autographic records were transcribed to an electronic format. The data was submitted to a thematic content analysis, through which we obtained six categories: communication, beliefs about weight and body image, beliefs about food, family patterns, controlling eating and attempted solutions, all of them based in the family systemic theory.

2.6. Ethic Considerations

The research was approved by the Ethics Committee Review Board of the Interinstitutional Doctorate in Psychology. The parents signed an informed consent form at an initial meeting, in which information regarding the ethics considerations was explained, such as the voluntary participation in the research and the option to withdraw at any moment without consequences for them or their child; the confidentiality of their identities and their child's, and that the interviews were going to be audio recorded.

3. Results

Four families were interviewed, including four children and five of their parents. The participants' names were substituted by their initials to protect their confidentiality. The sociodemographic and nutritional characteristics of the participants are presented in **Table 1**.

The findings obtained through the interviews were segmented and reduced into categories. The most outstanding results are presented with literal transcriptions grouped in bullet points according to each category.

3.1. Communication

The paradox communication about the body and the feeding characterized the families in which one of the members presents overweight or obesity. The families tend to use nicknames related to the body shape as love demonstrations. Besides the nicknames,

Table 1. Children and parent sociodemographic and nutritional characteristics.

	Informant	Gender	Age	School level	Nutritional state
Children data	MGP	Female	11	Fifth grade	Obesity
	JCVC	Male	12	Sixth grade	Obesity
	PHG	Female	10	Fourth grade	Overweight
	AJD	Female	13	Sixth grade	Normal weight
Parent data	JRG	Female	37	Middle school	Overweight
	JCN	Female	39	Elementary school	Obesity
	CST	Male	42	Middle school	Overweight
	NDR	Female	36	High school	Normal weight
	MFN	Female	40	College	Obesity

Note: The informant names were substituted by their initials.

the messages given to the children tend to be contradictory, where in one side they ask the children to watch its eating habits, while in the other they expose them to foods that they should avoid, being the parents the ones that buy that type of food and even the ones that eat it in front of the kid, telling them as the same time, that they should not eat that foods. Ask the children to finish everything that it's served in the plate and simultaneously expect that they should regulate their consumption, is one of the most common messages provided to them.

Minor: "...my mom calls me chubby as a nickname, or teddy..." (MGP);

Mother: "...maybe you take the opportunity to buy two or three kinds of junk food ... here the children asks for an ice-cream, I do not know, casual things ... potato chips"; "...he is expecting the main course during the meals ... sometimes a stew or fish, whatever ... he is almost waiting for it ... and he leaves what he was eating and starts to eat from the new course ... sometimes he does finishes the food and sometimes he does not, and then, he starts to get desperate ... We treat them with comments as if you do not finish you food you are not going to allow to ask for other foods later, but then, he starts to rummage (JRG)".

3.2. Beliefs about Weight and Body Image

The children have assimilated as a family expectation the weight consider as ideal, as well as a set of alternatives that can be used to reduce weight in case they are not at that ideal level. In the families that have children with overweight or obesity, we were able to find the belief that the obesity is transmitted genetically, particularly by one of the parents. The children belief that someone in the extended family, that do not live in the same house as them, are the model body type they would like to look alike physically. The exercise is considered as a possible solution to lose weight, mentioning they could do it if they decided to.

Mother: "at least some kilograms thinner. That he could lose weight, because if he has the thoracic cage as he does, I mean, he has a robust complexion since he was a baby, although he was not born fat, because he was tinny, weighting 2900 kilograms ... he was like ... robust ... but at least a more adequate weight..." (JRG);

Minor: "well, all my family is like this..."; "...I would like to have a body like my aunts, because she is thin..."; "I think that my dad is ok, but not my mom, she is chubby" (PHG); "...I can be thin if I watch what I eat and do exercise..." (AJD).

3.3. Beliefs about Food

Both children and parents identify there are some healthy and unhealthy foods, mentioning that it is through food that people gain weight. They considered fruits, vegetables, cereals, lacteous and some types of meats as nutritional, while the flours and the pork meat are pointed as harmful for the health, besides the "junk food". The overweight and obese children believe that they can eat freely any type of fruit, vegetables, meats, cereals and lacteous, without measuring their ingested portions, even when we talked about flours such as bread or tortillas, the identify them as necessary to their bo-

dies, having preference for those places in which they can eat freely and have uncontrolled access to flours. Meanwhile, the child with normal weight considered necessary to regulate its eating portions, while the flour food is not available all the time in its house.

Mother. "...all the food is healthy in its adequate proportion..."; "the bread has properties, but in great quantities it can poison us..." (ND);

Minor. "...I like to go to the buffet, there is pizza and sometime I eat a lot..." (JCVC);

Mother. "...I try that she does not eat so much pork meat..."; "...almost always, I prepare her a smoothie with oatmeal in the mornings or she has cereal with milk for dinner..."; "...she generally won't eat vegetables..." (MFN).

3.4. Family Patterns

One of the main differences between the families with normal weight, overweight and obese children is the control that the parents have in the consumption of foods. The kid with normal weight ask for its parents' permission to eat something, including fruits and vegetables, while the overweight child only announce it to them and the obesity children hide from their parents to eat candies, snacks or "junk" food. In all the cases, the mother is in charge of buying the necessary products for the preparation of the meals and to cook them, but, when someone else participates in that activity, they tend to buy more candy, ice-cream, cookies, soda, among other products that they seek to prevent the children from eat them.

The weekend represents an important risk in the modification of the eating habits, given that all the families tend to eat outside the home and/or to buy fast food. It is important to notice that during this time the fathers spend more time in the house.

There are family norms shared by all the families, among which the meals represent an important part of the interaction between their members, being used as a reward for school or behavioral performance by the parents; being used also as a justification in the family gatherings and birthdays, because in these occasions the children are allowed to eat whatever they want.

Mother. "...they go to the seven eleven, right?, every time they take you to Chapala you go to the seven eleven, right?, and, what do your grandparents buy you? ... potato chips..." (JCVC);

Minor. "...I told them if we go buy ice-cream because it is too hot, and they agree..." (PHG).

Mother. "...with his grandparents ... he hides ... you stole the candy ... and the wrappers appear under the couch..." (JRG).

Mother. "...I think the portions are the responsible, we go out to eat a lot..."; "...there is the problem, all the compensations are by eating, we compensate them by going to eat..." (JCN).

3.5. Controlling Eating

In the family with a normal weight child, the food portions are different according to

the member's age, while in the overweight or obese families, the portions are the same for all the family members, besides having the opportunity to serve more food or even another plate to those that request it. The overweight and obese children refer to eat the food quicker than their parents, point it as it was competition.

The minor with normal weight has better control of its food intake than the overweight or obese children, who get to eat without being hungry, getting to have stomach aches because of the excessive amount of food ingested.

Minor: "...like yesterday, we went to the Sirloin Stockade and I finished everything and my stomach hurt ... they got me a tea, and with it my stomach ache lowered, because I ate a lot..." (JCVC);

Father: "...sometimes he just finished eating and he is already asking for something else..." (CST);

Mother: "...the other day we did pozole and he ate a plate and waited to see if his cousins left anything to eat it ... and he finish his plate and wanted more..."; "...I served all the plates the same amount of food..." (JRG).

3.6. Attempted Solutions

The main strategies implemented by the families to control the children weight are diets, attend with a health professional to get treatment for overweight and obesity (doctor or nutritionist), reduce the food portions and stop eating some type of food such as meat, tortilla, bread or "junk" food.

Mother: "...how did you do it son?, do you remember?, when you felt better, when you were losing weigh?" (JRG).

Minor: "...oh yes, I was having yogurt for dinner, sometimes I did not have dinner, and when I had the magnesia milk..."; "...sometime I have water, so I do not get that hungry..." (JCVC).

Mother: "...yes, we have gone to the nutritionist, almost always I am the one that gets into a diet..."; "... don't eat chocolates or junk food..." (MFN).

4. Discussion

The aim of this research was to describe the perception that children and their parents have about the family functioning relating to childhood obesity. The findings indicate that elements derived from the family functioning, such as the communication and eating habits, the family patterns and out of the house interactions with extended family members are aspects that facilitate the generation of obesogenic risks among the children, being aspects that also difficult the task of controlling a family member weight when they are already overweight or obese.

The research approach to obesity differs from other researches by moving from the traditional individual approach, to a familial perspective (Vizmanos, Hunot, Alezander, & Capdevila, 2006). Most of the researches that address the family-obesity connection are focus in identify how the family contributes to the overweight and obese children adherence to treatment and/or to the performing of actions to control weight, leaving

aside the role played by the significances communicated to the minor, as well as the implemented family solutions to the obesity problem.

Childhood obesity has been attribute to different individual factors, among which we can find the exposure to communication media (Rodríguez, 2006; Pérez-Salgado, Rivera-Márquez, & Ortiz-Hernández, 2010), the food intake (Reig, Cortés, Rizo-Baeza, & Gómez, 2012), anxiety (Silva, 2007; Meléndez, Cañez, & Frias, 2010) and sedentary life-style (Durá Travé & Sánchez-Valverde Visus, 2005), however, in these research findings we can observe that the family communication, characterized by the nickname use and the existence of contradictory messages, along with the attempted solutions to lose weight and the family patterns of interaction are elements that have greater relevance in the obesity-family connection, where although the family identifies the existence of a weight problem in one of the members, there are no modifications in the speeches, presenting a paradox communication among its members.

When we talk about family functioning, several research has attributed childhood overweight and obesity to the mother, given that usually, she is the one in charge of buy and prepare food (García, Pardío, Arroyo, & Fernández, 2008), nevertheless, in this research we found that when the father does the food shopping, it's when the larger amount of snacks, "junk" food and beverages with high caloric content are acquired. There is also important to notice, that although the parents with overweight and obese children seem to be aware of their child's weight condition, it seems to exist a lack of perception of the risk that situation represents for their children health, and although they had tried different solutions, they usually do not involve actively and consistently in any of them, finding that concurs with the data reported in several researches, that point out that its common to find a misconception of child's health among the parents, along with a lack of parental concern and awareness about child's weight (Warschburger & Kröller, 2012; Moore, Harris, & Bradlyn, 2012; Nuñez, Campos, Alfaro, & Holst, 2013; Su, Huang, Anthony, Ramos, Toure, & Wang, 2014). This situation represents a factor that needs to be taken into consideration for the future health strategies that target the families in the efforts to prevent and control obesity, adding the fact that the parent school level and the type of information they have, along with the family dysfunction, are pointed as obesogenic risk factors (Aparicio & García, 2010; González, Vásquez, Cabrera, González, & Troyo, 2012).

The solutions to the obesity problem implemented at a governmental level have not gain the expected results, given that they are focused to the food selection and exercise (Masud Yunes Zárraga, 2012), being important to consider that these actions are suggested at an individual and family levels; this limitation has also been implemented at a school level, through the creation and modification of laws, regulations, agreements and intervention programs (General Health Law, 2012; Physic Culture and Sports General Law, 2009), through which the government has tried to control the type of food offered to students. According to our research results, the content of these strategies may have permeated all the way through the family level, where it's possible to find that the main strategies attempted to control the overweight and obesity of their members in-

clude diets and modifications of the food types and portions, finding that concludes with other research (Moore, Harris, & Bradlyn, 2012; Nuñez, Campos, Alfaro, & Holst, 2013), revealing the increasing need for more comprehensive strategies that can include different and complex models that would provide actually effective interventions that include topics such as the family communication, beliefs about the body and the food (Nuñez, 2007) family patterns and attempted solutions (Oliveros, Villaseñor, Preciado, Colunga, & Avalos, 2015).

As long as the biomedical definition that sustains that obesity is an unbalance between the food intake and the caloric expenditure predominates, the social positioning that propose that obesity is a multicausal phenomenon that generates from social and familiar specific conditions will be left aside.

The study limitations relate mainly to the ones present in every qualitative study, where the results are applicable only to the participants, not being able to generalize the findings. However, despite these limitations, the findings obtained allowed to understand better the relevance that the family has in the obesity phenomenon, making possible to identify aspects that need to be taken into consideration in further research and intervention strategies, such as the family communication and patterns.

It is suggested to develop further research in the family pattern topic, given that some behaviors were shared by all the families no matter of the child's weight condition, being important to identify other elements that might be playing an important role in this aspect. Also, it would be central to develop researches that include the extended family members, focusing in the detection of transactional patterns that involve food, given that it can become a regulator of family interactions. Added to the previously mentioned, it is considered necessary to develop studies that analyze the influence of the abundance and scarcity significance in the obesity phenomenon, given that they are transmitted through family generations and among its members.

5. Conclusions

Six different categories about the family obesogenic risk behavior were found in the participant speeches: communication, beliefs about weight and body image, beliefs about food, family patterns, eating control and attempted solutions, which derivated from the family systemic theory.

Starting to talk about communication, it is possible to find that the family transmits verbal and nonverbal messages that contain paradox communication about eating, where the instructions are contradictory between them, making impossible to complete both tasks simultaneously. In this category we found messages of acceptance to the child's body type accompanied by expectations of an ideal body type, exposure to unhealthy food at home and expectations that the child would control its eating habits.

The beliefs about weight and body image more relevant for the children are related to the importance of losing weight and the belief that is possible to consume freely the foods considered as health by the families, among which are the meats, fruit, vegetables, cereals, etc. It is noteworthy that the children with higher BMI are the ones that tend to

consider they can ingest freely this type of food.

The beliefs about weight, body type and food nutritional values and significance, are important to the families, being transmitted to the members as ideas and expectations that are accepted without questioning by the children; however, it's more important to analyze the way these beliefs are transmitted and implemented than their actual content.

The family patterns related to food selection and intake, along with the roles assigned based on the food, are elements that can influence the children weight, generating habits that remain in the child, even if they are not present in the parents. Nevertheless, it is important to point out that there are patterns shared by the families with normal weight, overweight and obese children, being the sum of the eating habits and the frequency in the intake of some foods, the factors that can make a difference in the children's weight. Among the family patterns found, we identify important elements such as the tendency of the parents to expose the child to situations in which it is not possible to regulate the food intake, also it is interesting to find that the member that more frequently buys "junk" food is not the one in charge of the preparation of the meals, and that the weekends are the time lap that represents bigger risks of modifications in the children's eating habits.

Regarding the eating control, we were able to find that family behaviors such as the lack of portion differentiation according to age and the explicit requirement that the child will eat everything presented in its plate, are elements that can increase the possibility of weight gain in the children. Also, it was noteworthy, that the child with normal weight implemented more behaviors and actions to regulate its food intake, while the children with overweight and obesity had more difficulty in this aspect.

Finally, seeking care from health professionals and following diets that decreases the food portions and the intake of food considered as unhealthy, were the attempted solutions more commonly implemented by the families of overweight and obese children to try to reduce their weight or body type.

Conflict of Interest Declaration

Authors declare there is no conflict of interests with this study, the authorship and the publication of this paper.

References

- Aparicio, M., & García, C. (2010). Educational Interventions on the Family Primary Carer May Be Prioritary to Prevent Childhood Obesity. *Pediatric Evidences*, 6, 19.
- Ceberio, M. (2004). *Who Am I and Where Do I Come from: The Genogram Workshop*. Argentina: Tres Haches.
- Cirillo, S., Selvini, M., & Sorrentino, A. M. (2000). *The Family Psycotic Games*. España: Paidós.
- Collipal, E., Silva, H., Vargas, R., & Martínez, C. (2006). The Meaning of Obesity for Adolescents of Temuco-Chile. *International Journal of Morphology*, 24, 259-262.
<http://dx.doi.org/10.4067/S0717-95022006000300022>

- De Onis, M., Blössner, M., & Borghi, E. (2010) Global Prevalence and Trends of Overweight and Obesity among Preschool Children. *The American Journal of Clinical Nutrition*, 92, 1257-1264. <http://dx.doi.org/10.3945/ajcn.2010.29786>
- Domínguez, P., Olivares, S., & Santos, J. (2008). Family Influence on the Alimentary Behavior and Its Connection to Childhood Obesity. *Archivos latinoamericanos de nutrición*, 58, 249-255.
- Durá, T., & Sánchez, F. (2005). Childhood Obesity: An Individual, Familial or Social Educational Problem? *Spanish Pediatric Record*, 63, 204-207.
- García, M., Pardío, J., Arroyo, P., & Fernández, V. (2008). Family Dynamics and Alimentary Habits. *Estudios sobre las culturas contemporáneas*, 14, 9-46.
- General Health Law (2012). *Federation Official Diary*, Mexico City, February 7, 1984.
- González, E., Aguilar, M., García, C., García, P., Álvarez, J., Padilla, C., & Ocete, E. (2012). Influence of Family Environment of the Development of Obesity and Overweight in a Population of School Children on Granada (Spain). *Nutrición Hospitalaria*, 27, 177-184.
- González, J., Vásquez, E., Cabrera, C., González, G., & Troyo, R. (2012). Family Dysfunction as an Obesity Risk Factor for Mexican School Students. *Revista Médica del Instituto Mexicano del Seguro Social*, 50, 127-134.
- Ho, M., Garnett, S., Baur, L., Burrows, T., Stewart, L., Neve, M., & Collins, C. (2012). Effectiveness of Lifestyle Interventions in Child Obesity: Systematic Review with Meta-Analysis. *Pediatrics*, 130, 1647-1671. <http://dx.doi.org/10.1542/peds.2012-1176>
- Hollis, J. (2005). *Obesity is a Family Problem: A Guide for the People with Eating Habits Disorders and Those That Shared Its Life*. México: Promexa.
- Liria, R. (2012). Consequences of Obesity in Children and Teenagers: A Problem That Requires Attention. *Revista Peruana de Medicina Experimental y Salud Publica*, 29, 357-360. <http://dx.doi.org/10.1590/S1726-46342012000300010>
- López, G., Neumark, D., Hannan, P., Fauquet, J., Loth, K., & Sánchez, D. (2012). Unhealthy Weight-Control Behaviors, Dieting and Weight Status: A Cross-Cultural Comparison between North American and Spanish Adolescents. *European Eating Disorders Review*, 21, 276-283. <http://dx.doi.org/10.1002/erv.2206>
- Macedo, G., Bernal, M., López, P., Hunot, C., Vizmanos, B., & Rovillé, F. (2008). Alimentary Habits in Adolescents from an Urban Area at Guadalajara, México. *Antropo*, 16, 29-41.
- Masud, J. (2012). Childhood Obesity. *Revista de Especialidades Médico-Quirúrgicas*, 17, 1-2.
- Meléndez, J., Cañez, G., & Frías, H. (2010). Food Behavior and Infantile Obesity in Sonora, Mexico. *Revista Latinoamericana de Ciencias Sociales, Niñez y Juventud*, 8, 1131-1147
- Moore, L., Harris, C., & Bradlyn, A. (2012). Exploring the Relationship between Parental Concern and the Management of Childhood Obesity. *Maternal and Child Health Journal*, 16, 902-908. <http://dx.doi.org/10.1007/s10995-011-0813-x>
- National Public Health Institute (2012). *Health and Nutrition National Survey 2012: National Results*. México: Secretaría de Salud.
- Núñez Rivas, H. P. (2007). Beliefs about Obesity in Basic Education Students. *Revista Educación*, 31, 145-164.
- Núñez, H., Campos, N., Alfaro, F., & Schumacher, I. (2013). Beliefs about Obesity of School Children with This Condition and Their Parents. *Actualidades Investigativas en Educación*, 13, 1-30.
- Oliveros, L., Villaseñor, T., Preciado, M., Colunga, C., & Ávalos, M. (2015). Proposal for Intervention with Systemic Family Therapy in Childhood Obesity. *Revista Electrónica de Psicología*

Iztacala, 18, 1117-1132.

Pérez, D., Rivera, J., & Ortiz, L. (2010). Food Advertising in Mexican Television: Are Children More Exposed? *Salud Pública*, 52, 119-126.

Physic Culture and Sports General Law (2009). *Federation Official Diary, Mexico City, February 24, 2003*.

Reig, M., Cortés, E., Rizo, M., & Gómez, C. (2012). Correlations between the Weight Loss and Fat. Influence of the Age and Overweight Level. *Nutrición Hospitalaria*, 27, 62.

Rodríguez, R. (2006). Childhood Obesity and the Effects of the Electronic Media. *Investigación en Salud*, 8, 95-98.

Su, D., Huang, T., Anthony, R., Ramos, A., Toure, D., & Wang, H. (2014). Parental Perception of Child Bodyweight and Health among Mexican-American Children with Acanthosis Nigricans. *Journal of Immigrant and Minority Health*, 6, 874-881.
<http://dx.doi.org/10.1007/s10903-013-9869-6>

Vizmanos, B., Hunot A., & Capdevilla, F. (2006). Feeding and Obesity. *Investigación en Salud*, 8, 79-85.

Wang, Y., Wu, Y., Wilson, R., Bleich, S., Cheskin, L., Weston, C., Segal, J. et al. (2013). *Childhood Obesity Prevention Programs: Comparative Effectiveness Review and Meta-Analysis*. Comparative Effectiveness Review, No. 115. <http://www.ncbi.nlm.nih.gov/books/NBK148737/>

Warschburger, P., & Kröller, K. (2012). Childhood Overweight and Obesity: Maternal Perceptions of the Time for Engaging in Child Weight Management. *BMC Public Health*, 12, 295.
<http://www.biomedcentral.com/1471-2458/12/295>
<http://dx.doi.org/10.1186/1471-2458-12-295>

World Health Organization. (2016). *Obesity and Overweight*.
<http://www.who.int/mediacentre/factsheets/fs311/en/>



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