



Perceptions and attitudes of children experiencing obesity*

Percepções e atitudes de crianças que vivenciam a obesidade

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Objective: to learn how obese children perceive and experience the condition of obesity in everyday life. **Methods:** qualitative research carried out with 14 children aged six to ten years. Data were collected through open interviews and subjected to content analysis under the thematic modality. **Results:** three categories emerged: Body self-perception of obese children - showing the dissatisfaction with physical shape; Recognizing the effects of obesity - portraying the difficulties experienced and how much excess weight interferes in daily life; and Seeking alternatives to lose weight - describing the initiatives (not always correct) of the children and their families for weight reduction. **Conclusion:** children see themselves as overweight and this condition interferes with their daily lives, the practice of physical activities, social relations and mental health, when there is *bullying* at school or at home.

Descriptors: Pediatric Obesity; Weight Loss; Body Image; Pediatric Nursing; Life Style.

Objetivo: apreender como crianças obesas percebem e vivenciam a condição de obesidade no cotidiano. **Métodos:** pesquisa qualitativa, realizada com 14 crianças entre seis e dez anos de idade. Os dados foram coletados por meio de entrevista nos domicílios e submetidos à análise de conteúdo, modalidade temática. **Resultados:** emergiram três categorias: Auto percepção corporal de crianças obesas - mostra a insatisfação com a forma física; Reconhecendo os efeitos da obesidade - retrata as dificuldades experienciadas e o quanto o excesso de peso interfere no cotidiano e; Buscando alternativas para redução do peso - descreve as iniciativas (nem sempre corretas) da criança e sua família para redução de peso. **Conclusão:** as crianças se reconhecem com excesso de peso e esta condição interfere em seus cotidianos, no desenvolvimento de atividades físicas, nas relações sociais e na saúde mental, quando existe *bullying* na escola ou em casa.

Descritores: Obesidade Pediátrica; Perda de Peso; Imagem Corporal; Enfermagem Pediátrica; Estilo de Vida.

*Extracted from the dissertation "A obesidade entre escolares: vivência das crianças e suas famílias", Universidade Estadual de Maringá, 2014.

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Introduction

Brazil, as well as other developing countries, has shown an increase in the prevalence of obesity and overweight, with signs of epidemic behavior. This increase is not only observed in the adult population, but also in childhood, with an increasingly precocious character⁽¹⁾.

Overweight in children and adolescents has a multifactorial etiology, probably due to complex interactions between genetics, lifestyle, eating habits, physical activity and socioeconomic factors. It also has important medium- and long-term implications, since obese children are more likely to become obese adults and, therefore, to acquire health problems such as hypertension early in life⁽¹⁻²⁾. In any case, childhood obesity is a concern because it can affect children's physical health, their social and emotional well-being and their self-esteem^(1,3-4).

However, as many of the triggering factors are modifiable, the increase in obesity and overweight in children has been widely discussed by the scientific community, especially as regards the triggering and consequential aspects⁽¹⁻⁵⁾. However, studies that address the experiences of children with obesity and their relation with this condition are not found in this same proportion. This is likely to be due to the difficulty in investigating the perceptions of this public, the ethical implications, or because children are quite reserved when it comes to approaching this topic, which according to mothers, also occurs in their relation with their children⁽⁶⁾.

Some studies developed with overweight children and adolescents⁽⁷⁻⁸⁾ have shown that their perceptions about obesity and their own experience with this condition may differ considerably. However, in general, results point to body dissatisfaction, difficulty to be included and accepted by peer groups, suffering due to prejudice, and difficulty of social adjustment in face of socioculturally established patterns of beauty.

These results suggest the importance of deepening the knowledge about the perception of obe-

se children and their way of facing the disease. This may support the implementation by health teams of individual and/or collective actions aimed at prevention and control of childhood obesity, as well as the definition how to approach this public, considering, above all, their understanding. In view of the above, the question raised in the study is: What is the perception that the obese children have about their body and how does it influence their daily life? To answer this question, we defined as the objective of this study: to learn how obese children perceive and experience the condition of obesity in everyday life.

Methods

Qualitative research carried out in the scope of Primary Care of Maringá-PR, Brazil. Maringá is a medium-sized city in the southern region of Brazil, which at the time of data collection had 28 Basic Health Units and 63 Family Health Strategy teams.

Data were collected from January to May 2014 through semi-structured interviews with 14 obese children. They were found by consulting the annual report of nutritional evaluation of the Food and Nutrition Surveillance System of the city, specifically of the year 2013. Nutritional assessments from medical and nursing consultations in all the Basic Health Units and municipal schools located in the area covered by the Family Health Strategy teams were registered in this system.

The report generated by the Food and Nutrition Surveillance System contains the following data: full name, weight, height, nutritional status, birth date, age, address, mother's name, and Reference Basic Health Unit. Then, children were classified by age group and those between six and ten years of age, of both sexes, and nutritionally classified as obese were included in the study. This process detected 86 children.

Then the telephone number and address of the families was searched in the manager system of the city for initial contact. On the occasion, the person responsible for the children received clarifications on the

objectives of the study and the form of participation of the child in the research.

Among the 86 children classified as obese, the family of 23 could not be located, and eight parents did not authorize the participation of their children. Thus, 55 children participated in the quantitative study and, 14 of these in the qualitative research. In each approach, those kids who showed greater ease of communication or who, from the perspective of the interviewer, expressed interest in talking more about the subject in question were observed for application of the structured questionnaire. In these cases, with the agreement and availability of the children and of the family members present in the occasion, open interviews were scheduled and held in their households, in the presence of a responsible person.

The script used consisted of two parts, the first one related to the identification of the child (name, sex, age, ethnicity, and grade in the school) and of the responsible person (degree of kinship, schooling, self-reported weight and height, and socioeconomic characterization of the family). The second part dealt with the relationship between the child and his/her body in the school and family environment and his/her knowledge about childhood obesity. For this, the following guiding questions were used: 1) "How do you feel about your body? Why?"; 2) "Do you have friends at school or near your home? How is your relationship with them? What about relatives?" 3) "Tell me what you know about childhood obesity".

At the end of the interview, in order to better understand the responses, in addition to stimulating their body perception, a Silhouette Scale, known internationally as "Contour Line Drawing" or "Figural Drawing Scales" was presented to participants. This scale is composed of 18 body figures (nine female and nine male) corresponding to different levels of nutritional status⁽⁹⁾ from extremely thin to very obese. The child was asked to circulate the figure he/she considered most similar to their body, and then invited to underline the figure he/she wanted to have. To interpret the results, we considered the recommendation that the

greater the difference between these two figures, the greater is the degree of body dissatisfaction.

The interviews were recorded with the aid of digital audio media, transcribed verbatim, preferably in the same day they were performed, and submitted to content analysis in the thematic modality⁽¹⁰⁾, which involves three steps. In the pre-analysis, the children's reports were exhaustively read, and the *corpus* of analysis was organized. Then, this material was exploited by separating excerpts from the registration units with identification of the themes to be worked on. Finally, the results obtained in the speeches were interpreted and correlated with the scientific literature in order to better understand the phenomenon studied.

To preserve the identity of the study participants, cartoon princesses names were used for girls, and superheroes for boys, followed by a number indicating the age.

The study complied with the formal requirements contained in the national and international regulatory standards for research involving human beings.

Results

Eight boys and six girls participated in the study, ranging in age from six to ten years. One interview was witnessed by the grandmother, another by the father and the mother of the child, and the others by the mother alone. The testimonies gave rise to three thematic categories: Body self-perception of obese children; Recognizing the effects of obesity; and Seeking alternatives to lose weight.

Body self-perception of obese children

The questioning with the silhouette scale made it possible to observe that the majority of the children explicitly stated that they were in some way dissatisfied with their physical shape, either because of the distance between the pointed figures (of the

current body and the desired body), or based on their reports. *I don't like my body. I wanted to be leaner.* (Ariel, 7 years old). *My body has only one bad things...What I least like are these fats* (Snow White, 10 years old). *I like myself, I just wanted to be thin* (Flash, 9 years old).

On the other hand, some boys expressed some advantages in being overweight, especially in relation to physical strength and resistance to some diseases. *That's good because I'm strong, but it's bad to be fat. There's a boy there who's bigger than me, but I do it like that* [hits his foot on the floor] *and he rushes out of fear. We try to see who is the strongest, then I win* (Batman, 9 years old). *Since I'm a bit strong, mosquitoes do not bite me, because my blood is strong... That's why they do not bother me* (Spider-Man, 7 years old).

From the statements selected to represent the data set, it is possible to state that the children recognized themselves as above regular weight (overweight or obese). As for the desired body, only one child did not wish to be thinner; this child chose the figure nine (more obese child) and said to wish to remain in this status. *I'm normal the way I am!* (Rapunzel, 9 years old). The other children expressed their desire to be thinner and, in this sense, pointed out that they wanted to resemble one or even six figures prior to that chosen as their current body shape. These choices, therefore, show how much each child would like to reduce their physical shape.

It is important to note that when asked if they would like the body to correspond to the other figure, some children reacted with surprise, considering that this was obvious: *Has any child ever chosen to be chubby?* (Batman, 9 years old). Or, they said they would like to be like other colleagues: *I wanted to look like this one, that even his the lung is showing* [ribs]. *My little friends from school, their lung is like showing* (Spider-Man, 7 years).

Regarding body self-perception, obese children recognized themselves as overweight and, in some cases, tried to point out some advantages of their physical form or denied that this is a problem, which characterizes a defensive stance in the face of questioning. However, dissatisfaction with the body was evident, especially when confronting current and desired

body status.

Recognizing the effects of obesity

During the interview, the children pointed out the reasons why they wanted to lose weight, and the reasons pointed out involved more than aesthetic issues, such as the desire to improve physical performance during school activities, especially among boys. *I do not want to always be fat. And I can not run much, and I'm kind of slow* (Captain America, 9 years old). *I wanted at least to weigh about 88 pounds. Because every time I play, we're going to play soccer, they tell us to run around, you know? I run a little and then get slow while the others go fast. And the teacher says "You can continue anyway". I wanted to lose weight to have resistance to run, play more...* (Green Lantern, 9 years old). *I wanted to lose weight so I could run a lot, and do gymnastics!* (Iron Man, 10 years old).

However, some children showed to wish to lose weight due to apprehension in face of the judgment of colleagues in school. It is also worth noting the particular way of reaction of each one of them against these criticisms. *Some boys bully me there. They say "Fat, whale, bag of sand"* [singing], *and they kept repeating all the time. Sometimes I do not even care, but when they talk a lot I go and try to get close to the janitor and they stop. There's another boy there who is fatter than me, and when they scorn him, that kid hits them. Then, they kick him* (Hulk, 9 years old). *Because there's a boy from the other class that's so big* [shows with arms the size of the colleague's waist] *bigger than me. And the boys call him fat. So I do not want them to call me fat either* (Wolverine, 9 years old). *In my school some people call me fat. It was the second grade, and I went to speak to the principal* (Ariel, 7 years old).

Others pointed out that not always a school employee is present during the provocations of colleagues and when they are, there is no effective action before the fact. *Because in my school everybody keeps calling me fat. Then sometimes I hit them, sometimes I cannot get them, then I stay in my place. And the director always listened to people calling me fat and she doesn't even "tchum" [doesn't care]...A long ago, in the nursery when I studied there, they would pick on me as well, so as they spoke, I would beat them* (Spider-Man, 7 years). *At school, a boy there says I'm fat. It was more than once. The teacher did not listen when*

he said that, it was at the interval (Jasmine, 8 years old).

Sometimes criticisms and bad-tempered jokes occur beyond the school environment. When they are present within the family context, they seem to be even more impactful. *In the family they joke about it. My uncle sometimes messes with me, but he is also chubby* (Superman, 8 years old). *In my family, my grandmother says that I am an elephant, that I would sit on the couch and I would blow the couch* (Jasmine, 8 years old). *My aunt and uncle warned me about soda. They said it was for me to stop or I would get fatter.* (Hulk, 9 years old).

Regarding knowledge about obesity, it was observed that only one child referred to the fact of searching information related to the following questions and using it in the daily life: *How do you lose weight so fast? Because the metabolism of men is faster than that of women.... Very strange! Because I should be thinner than you and my sister, because your metabolism is slower than mine. And she's leaner... where did I learn this? Guess what! On TV. Do you know what we have to know? Sodium! Sodium and trans fat. When I go to eat chips I look on the back to see the sodium content, it's 22 mega [mg] and 1.0%, thus you can eat that* (Batman, 9 years old).

The other participants made reference only to the difficulties experienced in their daily lives. In this sense, it is noticeable that some feelings such as apprehension and fear of criticism of their weight, or for being the subject of unpleasant jokes both in the school and in the family context, are common among these children. Among boys, the search for weight loss is motivated, in some cases, by the desire to improve the performance in physical activities.

Seeking alternatives to lose weight

Some initiatives aimed at changes in lifestyle were pointed out by children as possibilities for weight reduction. Strategies involving changes in the food routine were the ones most recalled by the children, who recognized some exaggerations in their daily diet. *I think I eat too much, I eat too much. Every now and then I eat candies, but I eat cookies almost every day* (Snow White, 10 years old). *At home, sometimes my mom does not control food well, she puts too much oil in the food* (Green Lantern, 9 years old). *I ate too much, I had too much hamburger... Fries... And I gained a few extra pounds* (Batman, 9 years old).

It is noteworthy that most children demonstrated to be aware that healthy eating is a practice that can contribute to weight reduction. However, they said that putting these attitudes into practice is not an easy task, and some still struggle to meet and keep the recommendations. *It's like today, when I left school we stopped by my aunt's house and I ate about three "coxinhas" [Chicken Croquette], but they were small, you know?...But I also had bacon, and I just ate "coxinhas".* (Spider-Man, 7 years old). *I try to be on diet, but I forget... when I realize, I've already eaten* (Captain America, 9 years old).

One aspect that deserves attention and concern is that the children mentioned the adoption of some stricter alternatives in order to achieve faster and more satisfactory results of weight loss. *There are days that I eat neither here nor at school... then, at the end of the day I eat like one pear* (Hulk, 9 years old). *There was a time when I would not eat anything [to lose weight]* (Cinderella, 8 years old).

Lifestyle changes involve not only eating habits but also the practice of physical activities, sometimes even excessively, in an attempt to achieve a rapid weight reduction. *Play, run, jump, ride a bike... More than I do. Walking all day on a bike until getting tired and then come back home* (Batman, 9 years old).

Wolverine, for his part, acknowledged that his physical activity did not have the desired effect because he could not control hunger. *I used to do capoeira, but this year I quit. I would do it to lose weight, but it didn't work. Because I would come from the capoeira and I was already too hungry, and right away I would eat something. No use, is it? Now I want to do another sport to lose more weight* (Wolverine, 9 years old).

In short, children believe that changing habits, especially in relation to eating and practicing physical activity, is an effective strategy to lose weight. However, they recognized that incorporating these habits into everyday life is a difficult task.

Discussion

The limitation of this study was the realization of only one meeting with the children and their relatives, what hindered the possibility to establish bonds, which may have interfered with the quality of

the answers. Furthermore, the fact that children were selected based on a noticeable greater ease of communication on the perspective of the main investigator, excluding the more timid ones, also represented a limitation, because the of children could have different perceptions about the phenomenon investigated. These limitations open up possibilities for future investigations.

One of the aspects that stood out in the investigation of how children perceive and experience the condition of obesity in daily life was the veiled preoccupation with body image, defined as the way that each individual sees the own body, that is, the mental image related to the size and body shape, being a representation that may undergo changes throughout life⁽⁷⁾. The silhouette scale has been frequently used in studies to evaluate body (dis)satisfaction^(7,11-12).

In this investigation, most of the children verbally manifested the desire to lose weight and confirmed it by the distance between the figures indicated in the visual scale as the current and the desired body. This makes it possible to infer that they were dissatisfied with their appearance. This represents a reason of concern, because this dissatisfaction has the potential to influence the children's mental health. Perceptual distortion and body dissatisfaction may be present at different stages of the individuals' life, including childhood, as confirmed in the present research. A national study, conducted with children in the 4th and 5th grades of elementary school showed a prevalence of body dissatisfaction of 76.9%⁽⁷⁾.

The relationship between body dissatisfaction and mental health was identified in a study with children and adolescents⁽¹³⁾, in which anthropometric measurements were made and an instrument was applied to evaluate the perception of self-concept. Lower average social acceptance, athletic competence, physical appearance, and self-esteem in the group considered overweight/obese was observed in contrast with the normal group. A similar finding was observed in a study that showed an association between dissatisfaction with body image and the presence of depressive

symptoms⁽¹⁴⁾. A study with 831 schoolchildren showed that 22.0% were dissatisfied with their body image and this was significantly more prevalent among overweight or obese women. Thus, low-weight schoolchildren were more satisfied with their image⁽¹⁵⁾.

However, more than an aesthetic and mental health concern, obese children and their families need to be warned about the close relationship between childhood obesity and the early development of lifestyle-related noncommunicable diseases and disorders, including diabetes, hypertension arterial diseases, cardiovascular diseases and certain cancers^(2,5,16).

Another aspect mentioned by the children was *bullying*. In Brazil, this term is defined in law as the practice of intentional and repeated actions with the intention of intimidating or assaulting someone, causing pain and anguish to the victim⁽¹⁷⁾. Thus, a large part of the children reported suffering some kind of *bullying*, especially in the school context. These actions may result in physical violence, including some children reported "kicking or hitting" those who threatened them. However, there are others who isolate themselves socially in an attempt to escape this type of violence.

It should be noted that some *bullied* children seek refuge among teachers or other school employees. However, the response of these adults to their search for help is not satisfactory and demonstrates that they are not always prepared to deal with such situations and, mainly, to prevent them from happening⁽¹⁷⁾.

As for strategies adopted to reduce weight, it is important to emphasize that the initiatives of children involve more than the search for a lean body; they also wish to improve performance during play and practice of physical activities in school and sports, particularly among boys. It is important to point out that even the fact that the obese child is spared by the coach during practice, despite being a source of embarrassment, is well accepted by the child, who recognizes himself breathless and unprepared to keep up the pace of his colleagues.

A national study compared the performance

in the six-minute walk test applied to schoolchildren aged 8 to 10 years and found no significant difference among the eutrophic, overweight and obese groups, but found that the final heart rate of the test was significantly higher among overweight children⁽¹⁸⁾. Overweight adolescents also presented impairment in cardiorespiratory fitness at the maximum and sub-maximal levels compared to adolescents with normal weight⁽¹⁹⁾.

In some cases, due to lack of information, family counseling and professional counseling, associated with the desire to lose weight for better physical performance or, for fear or fear of criticism and embarrassing jokes of colleagues and relatives, some children follow radical initiatives to control and reduce weight. They cited that at some point they have already adopted such means with the aim of obtaining fast results: skipping the main meals, spending long periods fasting, adopting a diet without professional guidance and performing an excessive physical activity.

Therefore, the search for alternatives that may help in loss of weight is valid, for it is indispensable that obese individuals face the problem. However, in the case of children, it is imperative that such alternative is supervised by an adult. A health monitoring program with physical exercises and adequate nutritional counseling, along with conventional medical treatment, is an important measure for prevention and treatment of this condition⁽²⁰⁾.

One positive aspect identified in the study was the concern of one child to seek information about the nutritional value of food in the packaging of products. Despite the difficulty interpretation of this information, this child showed to have knowledge on which nutrients should not be consumed or should be consumed in moderation, such as sodium and trans fat. This illustrates the importance of health education and changing habits with children, because although partially, they are capable of retaining information and reproducing learning.

The results can support the development of in-

dividual and/or collective interventions to be adopted by Primary Care health teams with children who are overweight and obese and their families. Thus, such actions should use appropriate strategies to approach the children, emphasize the prevention and control of childhood obesity and help in weight loss, since the participants of this study, for the most part, wished to change their physical appearance.

Conclusion

The study showed that children see themselves as overweight and this condition interferes with their daily lives, with the practice of physical activities, social relations and mental health, when there is *bullying* at school or at home.

Collaborations

Borges F contributed to the conception and design, analysis and interpretation of data; writing of the article and critical analysis of the intellectual content. Barreto MS, Reis P and Viera CS contributed to the analysis and interpretation of data; writing of the article, and critical analysis of the intellectual content. Marcon SS contributed to the conception and design, analysis and interpretation of the data and approval of the final version to be published.

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