Maternal perception of their children’s body image in exclusive breastfeeding

Percepção materna da imagem corporal de seus filhos em aleitamento materno exclusivo

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Abstract
Objective: Understanding maternal perception of their child’s body image in exclusive breastfeeding.

Methods: A descriptive, qualitative study was conducted through semi-structured and projective interviews, with 14 mothers of children aged one to five months old. An analysis of the thematic content was performed using the Theory of Social Representations.

Results: The visual and verbal classification of their children’s body image by mothers matched the nutritional diagnosis in nine cases. Three thematic categories were identified: distance between visual classification and perception of normal weight; minimization and rejection of weight extremes; and perception of child health versus exclusive breastfeeding.

Conclusion: Mothers reject the weight extremes, understand the benefits of breastfeeding, but they show a distancing of the concept of normal weight.

Keywords
Pediatric nursing; Nursing research; Maternal-child nursing; Breastfeeding; Body image

Descritores
Enfermagem pediátrica; Pesquisa em enfermagem; Enfermagem materno-infantil; Aleitamento materno; Imagem corporal

Resumo
Objetivo: Compreender a percepção materna da imagem corporal de seus filhos em aleitamento materno exclusivo.

Métodos: Estudo descritivo qualitativo realizado através de entrevistas semiestruturadas e projetivas envolvendo 14 mães de crianças com idades entre um e cinco meses. Realizou-se análise do conteúdo temático utilizando a Teoria das Representações Sociais. Uma análise do conteúdo temático foi realizada utilizando a Teoria das Representações Sociais.

Resultados: Em nove casos, a classificação visual e verbal materna em relação à imagem corporal de seus filhos correspondeu ao diagnóstico nutricional. Foram identificadas três categorias temáticas: distância entre a classificação visual e a percepção de peso normal; minimização e rejeição de extremos de pesos; e a percepção da saúde da criança versus o aleitamento materno exclusivo.

Conclusão: As mães rejeitam os extremos de peso, compreendem os benefícios do aleitamento materno, porém, demonstram certo distanciamento do conceito de peso normal.

Keywords
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Introduction

The benefits of breast milk have already been proven, with the possibility of reducing infant mortality by the presence of protective factors and lower risk of developing respiratory or gastrointestinal diseases.\(^1\)

From this premise, both the World Health Organization and the Ministry of Health recommend exclusive breastfeeding until the sixth month of life, and as a complement up to the age of two or more.\(^1\) This statement is especially relevant for children born in developing countries, since the replacement of breast milk often does not guarantee the nutritional needs of these children, given that food practices are associated with socio-cultural and economic aspects.\(^2\)

Although breast milk ensures the optimal growth pattern for children for its indisputable nutritional quality,\(^3\) many mothers are questioning the benefits of breastfeeding for not being able to see certain physical characteristics in their children’s bodies, such as folds and rounded contours, viewed by them and propagated by the media as a standard body image for children.\(^1\)

However, not all children who were exclusively breastfed correspond to this idealized image, so the mothers’ perceptions about their children’s body image may have an effect on duration of breastfeeding, encouraging weaning. Despite all the encouragement and promotion, protection and support breastfeeding actions that were developed, in Brazil the average length of breastfeeding increased just over a month and a half, from 296 days in 1999 to 342 days in 2008; rates considered unsatisfactory.\(^3\)

Therefore, the standards of beauty set by society influence the perception of body image and can be decisive in the composition of the individual’s personality.\(^4\) In this sense, parents’ satisfaction or dissatisfaction with their children’s body, by supposing they are fat or thin, may influence the child’s satisfaction with their own body.\(^5,6\) Moreover, the ideal body standard and modes of thought defined by the media have also played a key role in defining people’s lifestyle,\(^7\) as well as cultural influences can transform the beauty model and represent the standard shared by the group, as observed in the social acceptance of body image for children.\(^8\)

Thus, the incentive of breastfeeding only for nutritional benefits has not secured the commitment of women as they continue to question the quality of breast milk in the construction of the socially desired body image for children. In this context, the Social Representations provide input to the study of phenomena construction in social life, by making them normal in this society, as what happens with the image of chubby children.\(^9\)

As this body image may not match the image of children exclusively breastfed, maternal and social expectations can interfere with the practice of breastfeeding and early weaning.

Therefore, the objective of this study was to understand maternal perception of the body image of their exclusively breastfed children.

Methods

A descriptive, exploratory and qualitative study was conducted, using as a theoretical framework the Theory of Social Representations.

The data was collected at a Health Care Unit’s immunization room in the District of Camela, Ipojuca, state of Pernambuco, Northeast Brazil. The sample was non-probabilistic and followed the criterion of theoretical saturation. The participants were 14 mothers of children aged between one and five months old, from March to June 2011, who met the inclusion criteria of being exclusively breastfeeding and whose children were born at term. Those who had some visual or cognitive disabilities, whose children had to be hospitalized or had serious illnesses, and when anthropometric data could not be obtained, were excluded.

Two interview techniques were used in the data collection: projective, with the use of photographs, and semi-structured. For the projective interview, 12 photographs of children between one and approximately five months were selected, available on the Internet at sites in the public domain, who had physical characteristics corresponding to the nutri-
tional status of underweight, normal weight, overweight and obesity.\(^{(10)}\) The photographs were validated by six nurses to define the best representation of the nutritional status, and four images of better quality were selected.\(^{(11)}\) The photos were digitally scaled to display the same size, with the addition of black bars on children’s eyes and an identification number. Picture number one represented a eutrophic child, number two corresponded to an overweight child, number three to an underweight child and number four to an obese child.

During the presentation of the photographs to the mothers, the following questions were asked: Which photo looks more like the image of the body of your son? Why? Which one of these children represents the body you would like your child to have? Why?

The semi-structured interview consisted of obtaining the mother and child’s personal data and asking: how do you see your child’s body in relation to nutrition? After the interviews, the children were undressed, weighed on a digital paediatric scale (Welmy brand, Model E-109 Digital, Welmy manufacturer, capacity for 15 kg and 5g divisions) and their height was measured with the child in dorsal decubitus using a handmade wood infant meter with 100 cm breadth and 0.1 cm graduation.

The body mass indexes (BMI) were calculated and graphics by age built using the Anthro software in order to obtain the child’s nutritional diagnosis.\(^{(10,12)}\) For purposes of analysis, the nutritional diagnoses were classified as: severe thinness/underweight (< -2 Z-score), eutrophy (> -2 Z-score and < +1 Z-score), overweight risk/overweight (> +1 Z-score and < +3 Z-score) and obesity (> +3 Z-score).

The interviews were organized thematically according to content analysis, resulting in three categories: distance between visual classification and perception of normal weight, minimisation and rejection of weight extremes, and perception of child health versus exclusive breastfeeding.\(^{(13)}\) The data was interpreted in light of the Theory of Social Representations.\(^{(9)}\)

The study followed national and international standards of ethics in research involving human beings.

**Results**

The age of the mothers ranged from 15 to 39 years. Regarding education, five had completed high school, two had incomplete secondary education, one completed primary education, five had incomplete primary education and one was attending college.

The Body Mass Index of the children are presented in chart 1.

The mother’s choice of perceived and desired body image and the children’s nutritional diagnosis are arranged in chart 2.

### Chart 1. Children’s Body Mass Index

<table>
<thead>
<tr>
<th>Child</th>
<th>Gender</th>
<th>Age</th>
<th>Current weight (g)</th>
<th>Current height (cm)</th>
<th>BMI</th>
<th>BMI Chart by age (Z-score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I01</td>
<td>Male</td>
<td>03 months and 03 days</td>
<td>6395</td>
<td>62.5</td>
<td>16.4</td>
<td>- 0.58</td>
</tr>
<tr>
<td>I02</td>
<td>Female</td>
<td>02 months and 17 days</td>
<td>5600</td>
<td>56.5</td>
<td>17.5</td>
<td>0.90</td>
</tr>
<tr>
<td>I03</td>
<td>Male</td>
<td>01 months and 01 day</td>
<td>4600</td>
<td>52</td>
<td>17.0</td>
<td>1.43</td>
</tr>
<tr>
<td>I04</td>
<td>Female</td>
<td>01 month and 27 days</td>
<td>4400</td>
<td>52</td>
<td>16.3</td>
<td>0.39</td>
</tr>
<tr>
<td>I05</td>
<td>Female</td>
<td>02 months and 17 days</td>
<td>4900</td>
<td>59.5</td>
<td>13.8</td>
<td>1.64</td>
</tr>
<tr>
<td>I06</td>
<td>Male</td>
<td>03 months</td>
<td>7000</td>
<td>61</td>
<td>18.8</td>
<td>1.28</td>
</tr>
<tr>
<td>I07</td>
<td>Male</td>
<td>04 months and 10 days</td>
<td>6200</td>
<td>59</td>
<td>17.8</td>
<td>0.41</td>
</tr>
<tr>
<td>I08</td>
<td>Male</td>
<td>03 months and 24 days</td>
<td>7760</td>
<td>62.5</td>
<td>19.9</td>
<td>1.78</td>
</tr>
<tr>
<td>I09</td>
<td>Male</td>
<td>03 months and 06 days</td>
<td>6900</td>
<td>64</td>
<td>16.8</td>
<td>- 0.07</td>
</tr>
<tr>
<td>I10</td>
<td>Male</td>
<td>01 month and 26 days</td>
<td>5050</td>
<td>57.5</td>
<td>15.3</td>
<td>- 0.65</td>
</tr>
<tr>
<td>I11</td>
<td>Female</td>
<td>01 month and 15 days</td>
<td>5000</td>
<td>55</td>
<td>16.5</td>
<td>0.68</td>
</tr>
<tr>
<td>I12</td>
<td>Female</td>
<td>01 month and 29 days</td>
<td>4050</td>
<td>55.6</td>
<td>13.1</td>
<td>- 1.91</td>
</tr>
<tr>
<td>I13</td>
<td>Female</td>
<td>01 month and 17 days</td>
<td>5100</td>
<td>54</td>
<td>17.5</td>
<td>1.39</td>
</tr>
<tr>
<td>I14</td>
<td>Female</td>
<td>01 month and 13 days</td>
<td>5120</td>
<td>56</td>
<td>16.9</td>
<td>1.14</td>
</tr>
</tbody>
</table>
In the classification of perceived body image, only one interviewed related her child to the image of an obese child. The others chose the eutrophic child picture as the image similar to their child. There was a discrepancy between the perceived image and the nutritional diagnosis of the child in five situations, with one overestimation and four underestimations of weight. As for the desired body image for their children, only the mother who classified her child as similar to the obese child chose as the desired image the overweight child picture; the others chose the eutrophic child image.

Table 2. Correspondence between maternal choice of perceived body image, the desired one and the nutritional diagnosis

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Perceived child’s body image</th>
<th>Desired child’s body image</th>
<th>Nutritional Diagnosis (BMI Chart by age)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I01</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
</tr>
<tr>
<td>I02</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
</tr>
<tr>
<td>I03</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>At risk of overweight/overweight</td>
</tr>
<tr>
<td>I04</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
</tr>
<tr>
<td>I05</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
</tr>
<tr>
<td>I06</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>At risk of overweight/overweight</td>
</tr>
<tr>
<td>I07</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
</tr>
<tr>
<td>I08</td>
<td>Obesity</td>
<td>Overweight</td>
<td>At risk of overweight/overweight</td>
</tr>
<tr>
<td>I09</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
</tr>
<tr>
<td>I10</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
</tr>
<tr>
<td>I11</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
</tr>
<tr>
<td>I12</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
</tr>
<tr>
<td>I13</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>At risk of overweight/overweight</td>
</tr>
<tr>
<td>I14</td>
<td>Eutrophic</td>
<td>Eutrophic</td>
<td>At risk of overweight/overweight</td>
</tr>
</tbody>
</table>

Mothers minimized the significance of the nutritional diagnosis of overweight, obesity and thinness. It is perceived how easy it was for the mothers to describe the characteristics of overweight, however, they assign appropriate weight to these aspects, representing the symbolism involved in the image of the chubby baby.

This assumption that a very fat child is unhealthy is perceived by mothers. However, the nutritional status of overweight does not mean a disease, which does not occur in relation to the perception of obesity and thinness, so maybe that’s why one of the mothers pointed out the image corresponding to the overweight child as body image desired for her son.

Mothers want their children stronger, chubbier and use diminutive words to justify the nutritional status of overweight and obesity. However, they do not show the same satisfaction with thinness, revealing feelings of pity and characterization of disease to refer to the characteristics of thin child represented by photo number three.

Intermediate weight is accepted, tending towards overweight, but they are afraid to accept the image of the body at weight extremes.

Perception of child health versus exclusive breastfeeding

The maternal satisfaction with the child’s body weight was attributed to breastfeeding. The benefits
of breast milk as the child’s sole diet appear in the mothers’ speech; however, in describing the body of the child with adequate weight, they did not use so many positive words or adjectives to demonstrate satisfaction with the child’s body image.

The interviewees also attributed the absence of skin problems, children’s sleep patterns and good health to the practice of breastfeeding. Also perceived was the shared scientific knowledge of professionals about the benefits of exclusive breastfeeding.

Only one of the mothers correlated exclusive use of breast milk negatively with the child’s growth, expressing her dissatisfaction with her child’s weight.

**Discussion**

The study’s limitations are related to the qualitative approach, which restricts the generalizability of the results. However, relevant aspects to be considered in the practice of health professionals as a strategy to increase the duration of breastfeeding and promote child health have been identified.

Nurses and other professionals are experiencing a shift in paradigms of ideal weight and body image related to breastfeeding. This may have contributed to the difficulty in conceptualizing the “normal weight” for the women in this study. As the professional discourse is limited to information that “the weight is appropriate, the child is growing and so is healthy”, it does not clearly define the meaning of this nutritional diagnosis to the families. Accordingly, nurses need to use the concept of “normal weight” more clearly in their clinical practice, helping the deconstruction of an scientifically undesirable representation, since the cute child may be an obese adult, understanding that the assimilation of a representation takes time.

Most mothers were able to compare the body image of their child to the photos displayed, correctly classifying nutritional status, showing good accuracy in assessing the nutritional status of their children. This interpretation of body image with the offered model was by appointment, one of the necessary aspects for the assimilation of a social representation.(9)

Mothers demonstrated knowledge about the representation of a “child with normal weight,” although their statements demonstrate a distance from this concept. This was identified in other studies which observed no correlation between visual and verbal maternal perception in the classification of their children’s weight, especially when they were overweight or obese(14) and the imprecision in maternal perception when assessing their overweight child, and also highlighting their satisfaction with the child’s excess weight.(15) The opposite can also be ascertained when the mothers whose children were underweight, showed dissatisfaction for believing that their children were outside a standard image and weight expected for their age group. (15)

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Although none of the children in this study can be classified as obese, four mothers underestimated their children’s weight, classifying them with appropriate weight, even though they were at risk of overweight/overweight. These results are similar to the findings of another study, which found out that parents did not perceive overweight or obesity in their children.(14)

The perception of parents in identifying the nutritional diagnosis of their children is one of the most significant lines of activity in weight control and prevention of childhood obesity.(16)

Old paradigms of health also conditioned health and happiness towards the children’s weight, promoting the image of the chubby children. These aspects related to the difficulty in identifying the children’s nutritional status or the denial of overweight or underweight can contribute to the absence of treatment of children with inadequate nutrition diagnoses during childhood.(17)

In order to verbally and visually classify their child’s body image, mothers used association, although they have not been taking the other steps necessary to familiarisation sequenced by the Theory of Social Representations, that are: comparison, interpretation and then reproduction as a representation.(9) This shows the difficulty in characterizing and conceptualizing the normal weight of their children.
This aspect is relevant because an object or idea only becomes real and palpable from the assignment of names and concepts, and it is possible to turn something abstract into reality through the images and the arsenal of categories or ideas carried by the individual, upon interaction in their social coexistence.\(^{(9)}\) Although most mothers classified their children’s body image as eutrophic, their statements seem to bring the representation of the “chubby and full of folds child” constructed, disseminated and socially shared as the idealized body image for children.

While expressing that “fat” is not a sign of health, the mothers had difficulty in describing this “new concept” of body image brought up by science and incorporated by health professionals. It is necessary to consider that health concepts are undergoing a process of change, so maybe the mothers have difficulty in describing the physical characteristics of a eutrophic child.

Following this logic, while parents are unable to identify and become accustomed to the appropriate weight as a standard of expected growth, following the steps defined in the theory of social representations, the lines for prevention of unsuitable family-centred childhood nutritional diagnoses may not be fully effective, because it is understood that the representation of a phenomenon guides the individual’s behaviour about it.\(^{(9,10)}\)

The characteristics of overweight seem to be well more tolerated and desired for nursing infants, as observed in the symbolic representation of the “chubby” and “cute” baby shared by mothers and society. Descriptions as “massive” or “strong” have been used by parents in another study to classify their children’s obesity.\(^{(18)}\)

Although there has been a cult of thin bodies, popularized in the media as a symbol of health and condition of success and social acceptance, the thinness of body pattern is not the desirable representation for childhood, as the image of a chubby child continues to be more valued.\(^{(19,20)}\) As seen in the confrontation with social reality, beauty standards created by the media promote that an overweight child with certain folds is acceptable, although this nutritional status is not tolerable in other stages of life.\(^{(21)}\) The description of the children’s physical characteristics by their mothers in this study confirms the maternal predilection for body shapes closer to the overweight, despite rejecting the image of children representing the weight extremes.

The social representation of the image of the chubby child, taken as a standard of beauty and health in other times, can still contribute to the dilemma of the nursing mothers who breastfeed their children in thinking that their milk is weak, and believe it’s not enough to nourish their babies, for they usually have the appropriate weight, not corresponding to the ideal of beauty set by society and may lead to early weaning.\(^{(22)}\)

More worrying is the fact that not always is this subjective dimension – wishing for their children a picture of a fatter child – considered in the approach of health professionals, as verbal and visual classification of nutritional diagnosis by parents may contribute to better control the child’s growth.\(^{(23)}\)

This could be observed in the speech of a mother, which proved to be contradictory when reproducing the guidelines dictated by professionals, recognizing the benefits of breast milk: “breastfeeding is at least doing that”, as it ensures that her daughter is healthy. However breastfeeding was not living up to the ideal body image expectations, as admitted in the statement: “but getting chubby the way I wanted is not happening yet”.

The mothers were in a process of change towards acceptance of growth patterns. They understood and justified well the advantages of breastfeeding and correctly classified their children’s body image, in most cases.

**Conclusion**

Mothers reject weight extremes, understand the benefits of breastfeeding, but they show a distancing of the concept of normal weight. They can correlate the body image of their exclusively breastfed children to the body image of another eutrophic child when they have an adequate weight. However, they do not perceive when chil-
Children are at risk of being overweight/overweight, and wrongly classify their children as similar to the image of the eutrophic children.

Collaborations
Bezerra JLO; Vasconcelos MGL; Linhares FMP; Javorski M and Leal LP contributed to the conception and design, analysis and data interpretation; drafting the article, revising it critically for important intellectual content, and final approval of the version to be published.

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