ABSTRACT
Objective: To describe and interpret a woman’s perception of her body image during the breastfeeding process.
Method: Descriptive qualitative study conducted at a university hospital in the Southeast region, Brazil. Forty-three puerperal women who were breastfeeding were interviewed. The interviews were submitted to lexical analysis using the IRAMUTEQ software and interpreted based on the Interactive Theory of Breastfeeding.
Results: Women report dissatisfaction with changes in body image during breastfeeding. But they also value and want to keep breastfeeding because of the benefits for the child. Finally, several women express the desire to perform plastic surgery in the future because of these body changes.
Conclusion: The woman’s perception of her body image as satisfactory/unsatisfactory indicates that body changes cover the breastfeeding process with feelings of ambiguity. Body changes are perceived by women in a personal, subjective and complex way.
RESUMO
Objetivo: Descrever e interpretar a percepção da mulher acerca da sua imagem corporal durante o processo de amamentar.
Método: Estudo descritivo qualitativo realizado em hospital universitário da região sudeste, Brasil. Foram entrevistadas 43 puérperas que estavam amamentando. As entrevistas foram submetidas à análise lexical com o software IRAMUTEQ e interpretadas baseadas na Teoria Interativa de Amamentação.
Resultados: As mulheres referem insatisfação com as mudanças na imagem corporal durante a amamentação. Mas também, valorizam e desejam manter a amamentação devido às vantagens para o filho. E várias expressam o desejo de realizar cirurgia plástica futuramente frente a essas mudanças corporais.
Conclusão: A percepção da mulher sobre suaimagem corporal como satisfatória/insatisfatória aponta que as mudanças corporais revistem o processo de amamentação de sentimentos de ambiguidade. As mudanças corporais são percebidas pelas mulheres de forma pessoal, subjetiva e complexa.

INTRODUÇÃO

Body image is the drawing that our mind makes of our own body or the way we see it, and over time and according to situations, we change the way we perceive our body, also recognizing the importance of social, cultural, psychological and physiological relations in the formation of this image\(^{(1,2)}\).

Still, body image is linked to the concept of oneself, linked to a character of dynamism inherent to feelings, being something subjective and constituted by the image that the
individual observes in the mirror, where he/she structures a mental figuration for her/himself. The meaning of each experience in front of his own “Self” instigates the individual to change or preserve his image. The concept of one’s own body includes the physical, social and affective aspects that are manifested throughout life and undergo several changes according to experiences\(^{(1-4)}\).

The process of pregnancy is a phase that comprises complex physiological and psychological transformations that may change the perception of the woman’s body image, which can last during breastfeeding\(^{(3,4)}\). Breastfeeding as a “dynamic interaction process in which mother and child interact with each other and with the environment, to achieve the benefits of human milk, offered directly from the breast to the child, being a unique experience at each event” results from multiple factors and consequently implies in others\(^{(5)}\).

In this context, significant changes in a woman’s life can profoundly change the way she perceives herself and her body during the puerperium, making this moment troubled and challenging\(^{(4,6,7)}\). The transition of motherhood and the transformations resulting from the new condition can generate a feeling of lack of self-knowledge, in which women often feel obliged to abandon habits and characteristics they had before motherhood to be able to fit into the “role of mother” possibly causing a change in the perception of their own self, and this can influence their body image\(^{(7-9)}\).

Although the theme of body image in breastfeeding has been investigated as an interpretation of the findings of the aforementioned studies, the use of a mid-range nursing theory as a reference for interpreting the data is original. Moreover, the theoretical structure of nursing provides a perspective of describing the phenomenon in categories of disciplinary knowledge that form identity and ease horizontal dialogue with other disciplines involved in the investigation of the phenomenon\(^{(5)}\).

Considering that the conception of women’s self-image encompasses personal, psychological, interpersonal and environmental aspects, the question is: How do women perceive their body image during the breastfeeding process? In this sense, the present study aims to describe and interpret the women’s perception on their body image during the breastfeeding process.

**METHODOLOGY**

Descriptive study with a qualitative approach based on the Interactive Theory of Breastfeeding as theoretical framework\(^{(5)}\). The research report followed the Consolidated Criteria for Reporting Qualitative Research (COREQ).
The study was conducted in a large hospital in the state of Espírito Santo, southeastern Brazil. After selection by intentional sampling using a face-to-face approach, 41 women agreed to participate in the study. Those who met the following criteria were included: being breastfeeding, having at least 24 hours postpartum, served at the hospital’s human Milk Bank, or hospitalized in the maternity ward, from January to February 2020. As a single exclusion criterion: deaf-mute women.

Three female researchers performed data collection using a semi-structured script containing sociodemographic and clinical data: age, marital status, education, family income, and history of breast surgeries and previous pregnancies. And at the end, two guiding questions: “How did you perceive your breasts and your body before pregnancy?” and “How do you perceive your breasts and your body during the breastfeeding period?”. The interviews lasted an average of 30 minutes and were conducted in a private space. To ensure anonymity, the participant was identified as interviewee I, in the sequence in which it occurred (I1, I2, I3, ..., I41).

The interviews were MP3-recorded, transcribed and colloquial language marks and figures of speech such as “like” were eliminated from the textual corpus; “like this”; “so”, “got it”. For data analysis, the transcripts were typed into Open Office Writer program, constituting the corpus of analysis, which was imported into the Iramuteq software and analyzed using the techniques of Descending Hierarchical Classification, Similitude Analysis and Word Cloud(10).

Posteriorly, the interpretative analysis of the corpus was based on the Interactive Theory of Breastfeeding, especially its conceptual structure and its relational statements. This theoretical choice has three justifications: its level of coverage (medium range), which makes inferences on empirical data closer to reality than adopting a conceptual model or grand theory; the focus of the theory (breastfeeding); and its interactionist philosophical nature, making the experience between personal, interpersonal, and social systems more understandable and explicit. Furthermore, it incorporates elements that can contribute to the interpretation of body image changes during the breastfeeding experience for these women, among them: the maternal role; the organizational systems of protection, promotion and support and decision-making of women. By recognizing that we change the way we perceive our bodies over time and according to different moments of life in which we find ourselves, like in the process of breastfeeding, the Interactive Theory of Breastfeeding can contribute to understanding the present qualitative study(5).
Regarding ethical issues, the participants were informed about the study in person and after reading it, they signed the Free and Informed Consent Form. Also, they were informed about their right to refuse to participate or refuse to answer any questions, interrupt the interview or withdraw from the study at any time without giving information or affecting their future care/services. The research was approved by the Research Ethics Committee under CAAE 53610316.8.0000.5060.

RESULTS AND DISCUSSION

Regarding sociodemographic data, most of the women interviewed were aged between 18 and 34 years old (58.53%) and 41.46% were over 35 years old. The average age of the women interviewed was 32.8 years. As for monthly income 2.4% said they did not have a fixed income and, considering the value of the minimum wage for the current year (2020), most women receive from 2 to 8 minimum wages (78.04%), with only 19.5% receiving more than 8 minimum wages. Regarding schooling, 2.4% informed not having completed elementary school, while 2.4% had incomplete high school, 29.4% completed high school, 2.4% completed a technical course, 48.8% of them undergraduates 14.6% said they had a graduate degree. Regarding marital status, it was found that 12.2% were single, 56% were married, 24.4% were in a stable relationship and 7.4% were divorced.

Regarding previous breast surgeries, 92.7% stated that they have never had and 7.3% reported have had breast surgeries, 100% of which were related to the placement of silicone prosthesis. Regarding the gestational history, 56% were primiparous and 44% multiparous.

The corpus consisted of texts from 41 interviews with the participants. These texts originated an average of 1072 text segments (TS), totaling 6,659 occurrences (total number of words in the corpus) and divided into 173 text segments, corresponding to 87.82% of the total TS of the corpus.

Based on the text segments obtained, a descending hierarchical classification (DHC) analysis was performed, which resulted in seven classes, and after analysis of the associated classes in the same block, these were gathered considering the similar context and thus resulted in four classes (Figure 1), namely: “Changes in self-image after the gestational and breastfeeding process”; “Satisfaction with the breastfeeding process regardless of body changes”; “Changes, pains and difficulties during the breastfeeding process”; and “Projecting a new body image”.

5
Figure1 - Dendrogram of the descending hierarchical classification, which illustrates the relations between the united classes in face of the similar context. Vitória, Espírito Santo, Brazil, 2022

In view of the results obtained, it was possible to observe the formation of four final classes that indicate how women after pregnancy and during the breastfeeding process perceive their body image.

Class 1: Changes in self-image after the gestational and breastfeeding process

After merging the original classes 1 and 2, the new class 1 incorporated 24.9% of the text segments, with words that reflected the changes that the pregnancy and breastfeeding
process caused in the self-image and sexuality of this woman towards her partner, being common terms, such as will, delivery, normal, hard, month, flaccid, baby, stretch mark, husband and sexual. The chi-square ranged from 40.07 (will) to 7.54 (sexual). Class text segments:

During pregnancy it was such a process of a lot of change. (I10)

After you have a child changes, the body, the breast, the belly, the childbirth. The baby changes everything. (I28)

Because it's not that firm thing like it was before. I used to feel powerful. Not today, I don’t feel like that anymore. (I18)

My breasts were firmer, more “upright” and now are flaccid and one bigger than the other. (I22)

My body has changed a lot, my belly has become more flaccid, it’s very different. (I12)

I liked my body a lot before pregnancy, after pregnancy I felt much fatter, much more swollen and even more complicated to breastfeed. (I15)

After you have a child, you feel a certain embarrassment to expose your breasts near your husband. (I28)

My breasts have lost this aesthetic and even the sexual importance. (I29)

It’s like the stretch marks on the body, the stretch marks on my belly, my belly that hung after I had my babies. (I20)

[...] thinking about the aesthetics, something that displeased me were the changes in the breasts. (I17)

One of the first discoveries after childbirth is the perception that the body is different and will not be the same as before pregnancy, as some changes resulting from pregnancy remain, generating a change in the body image of this woman\(^{(3,4,8)}\).

The postpartum period also brings particular experiences for women about body sensations, this period being a single moment experienced by each woman in an individual and unique way. The perception of stretch marks, flaccidity, the different belly, the change in the size and shape of the breasts, and the presence of feelings of dissatisfaction with the new image that affects women’s sexuality and self-confidence are reported in the literature, and were also observed in the text segments of the study\(^{(8,9,11)}\).

The Interactive Theory of Breastfeeding postulates that the woman’s biological changes preparing her body for breastfeeding influence her body image and may interfere with her decision-making on breastfeeding\(^{(5)}\).
Research evidence point out that body changes, such as changes in breasts shape and in the body as a whole, can be seen as positive or not\(^{4,6,7}\). These changes, when negatively perceived, make women feel uncomfortable with their partner, causing feelings of dissatisfaction and body shaming\(^{11,12}\).

In addition, for many women, the simultaneous coexistence between the roles of mother and wife is difficult, especially if they do not receive support from their partners, which intensifies the perception of body changes, as well as changes in relationships and social roles\(^{11-14}\).

The role of mother is a behavior that is expected of women when they start to occupy the position of mother in society, having breastfeeding as one of their responsibilities and, as suggested by the Interactive Theory of Breastfeeding, the role of mother influences, as well as suffers interference of the woman’s body image\(^{5}\). Thus, when assuming the role of mother, the changes from the birth of a child, make the woman assume a new condition of herself and in relationships with others, which causes a change in behavior and posture and, therefore, finally, the complete transformation of self-image\(^{6,7}\).

Class 2: Satisfaction with the breastfeeding process regardless of body changes

Formed from the merging of the original classes 3 and 4 and corresponded to 24.85\% of the text segments. It presents elements about the positive perception of women regarding the breastfeeding process, regardless of the body and aesthetic changes that have occurred. Consisted of words such as perception, breastfeeding, negative, always, problem, satisfied and breastfeeding with chi-square values ranging from 65.16 (perception) to 5.13 (aesthetic). The representative text segments of the class:

*My body has gone through many changes, but I am very satisfied with what I may be doing for my baby.* (I38)

*I do not have this negative perception of the body, on the contrary, my perception of the body is a more beautiful body, which had a phase of transformation* [...]. (I29)

*...the pleasure of seeing the little being feeding, that became rewarding* [...]. (I18)

*I feel more fulfilled because you see the ability you had to generate a healthy child and now be able to breastfeed.* (I14)

*I like the breast a lot more now because it's much bigger, I'm pleased to see that I have a blessing, a miracle in me, a lot of milk, my daughter growing from my milk, so it's very satisfying to see that.* (I33)
I have this perception. The breast is drooped, but it's calm, super peaceful, I care about my baby's health, her health.(26)

The Interactive Theory of Breastfeeding assumes that the unsatisfactory body image of the mother can generate stress in the interaction with the child, impairing the breastfeeding interaction process. And on the other hand, a satisfactory body image favors interaction with the child, achieving success in breastfeeding(5), which can be observed in the text segments.

According to the reports, during the breastfeeding process, the emphasis seems to be on the interactive process and the goal of breastfeeding. Although women may have some negative perceptions of their body image, the central issue is aimed at effective and pleasurable breastfeeding. For some of the participants, the transformations did not seem to be of greater relevance, considering what becoming a mother represents, leaving in the background any attention to physical and aesthetic aspects of their bodies(4,6-9).

The positive reinforcement of successful breastfeeding triggers in the woman a feeling of deep connection with the child and, more than that, the feeling of fulfillment as a woman and mother, which can interfere in the decision-making process to start and maintain breastfeeding(5,8,9). The literature points out that this is influenced by personal, interpersonal or social issues, such as pleasure and joy in nurturing your child, concern with the supply of milk, family and social support(14,15).

A feeling of responsibility linked to the act of breastfeeding emerges since the child's nutrition is essential, thus enabling the best food, expressing a concern for the child's well-being and reinforcing the feeling of personal gratification when they are able to breastfeed(13,16). The Interactive Theory of Breastfeeding can provide a basis for understanding these issues, because when assuming the role of mother, the woman acquires rights and obligations of this new social position, one of which is to breastfeed, if this is her decision(5).

Feelings of self-confidence and fulfillment in women, such as those seen in the text segments of this study, stimulate milk production, bringing a feeling of happiness and a feeling of having successfully fulfilled her duty as a mother(4,17,18).

Class 3: Changes, pains and difficulties during the breastfeeding process

Formed by merging the original classes 5 and 6, representing 35.02% of the segments. The text segments predominantly refer to changes in the breasts in view of the preparation for the lactation process, more swollen and painful breasts and areolas, engorgement, fissures, mastitis; being characteristic words: get, areola, dissatisfied, feed, swollen, so painful and
breastfeeding period. Chi-square values ranged from 27.73 (areola) to 6.37 (dissatisfied). The text segments of this class are below:

The body very swollen, very painful too, the breasts very painful. (I15)

Now during the period of breastfeeding, the breast has changed, the areola has become a little dark, painful, swollen. (I32)

[...] I had mastitis. I have had a surgery because of an abscess. (I08)

[...] it hurt, it hurt a little, it fissured, I believe because of the suction, I believe it hurt because of that. (I26)

[...] when there's a lot of milk, it gets hard and hurts a lot... (I40)

I am having a lot of difficulty, because, as it is the first pregnancy, I had no experience with breastfeeding. The breast fills up a lot, it gets painful. And since I have a big breast, it is very hard. (I07)

Body changes such as enlargement and darkening of the areolas, swelling and pain in the breasts were common reports in the interviews and portray the actions of maternal hormones preparing for the breastfeeding process. These conditions are necessary biological changes, as described by the Interactive Theory of Breastfeeding, and that interfere in the mother-child dynamic interaction and in the body image of the woman(5).

Also, changes in body shape and weight, in a short period of time, turn difficult for some women to assimilate and incorporate these changes during pregnancy, despite they tend to accept these changes as consequences of pregnancy and breastfeeding(2-4,7). Such changes cover breastfeeding with feelings of ambiguity, caused by tiring and difficult moments, such as incorrect grip at the beginning of breastfeeding and nipple fissures, but also by feelings of satisfaction and pleasure in feeding the child(6,9,15).

Field studies point out that breast engorgement, nipple injuries and pain are important causes of interruption of breastfeeding in the first days of life, leading to early weaning. And they indicate a prevalence of nipple trauma between 13.56% and 17.9% among puerperal women(17-19). These issues can be explained by the Interactive Theory of Breastfeeding, as the dynamic interaction between mother and child involves perception, judgment, action, and reaction between them during positioning and suctiongrip of the child on the breast to be able to breastfeed. However, if there are inadequate biological conditions (engorgement and nipple fissures), there will be stress in the interaction between them(5).
Class 4: Projecting a new body image

The final class 4, formed by the previous class 7, represented 15% of the text segments. In these text segments, it was observed the idealization and the desire to perform surgical procedures for aesthetic changes to improve the body that, in the perception of the interviewees, suffered negative impacts in the process of becoming pregnant and breastfeeding. This class concentrated the words get pregnant, child, put, prosthesis and concern whose chi-square values ranged from 23.15 (get pregnant) to 8.15 (concern). Segments of this class are:

Today I think about the future, maybe put silicone, something like that, because of the difference in the size of the breasts. (I8)

I think about getting a prosthesis after having a baby. The idea that the breast is going to fall is big and heavy. [...] I have this concern, I want my body to come back at some moment. (I21)

The breast, I always said that after I got pregnant, I wanted to have surgery, even because aesthetically it bothers me. (I30)

Now I’m going to need to have a good diet and I wish I could have surgery because my body is not looking good. (I12)

It changes a lot in the body, before I felt better, I was thinner. (I39)

Breast plastic surgeries are performed for many reasons, but the main one remains aesthetic, aiming to improve or recover the original aspect, shape, and breast volume, as observed in the text segments of this class. In other studies, women also report dissatisfaction with their body image, wanting to be thinner, and aiming for some change through aesthetic surgical procedures\(^{(11,20)}\).

The Interactive Theory of Breastfeeding recognizes that individuals are complex and that they differ in their needs, desires and goals\(^{(5)}\). This assumption of the Theory can be applied to the understanding of women’s choices in the reset of their body image, because for some of the interviewees, aesthetic plastic surgeries seem to be a future alternative.

Evidence show that women point to a great concern with weight gain, fear of not being able to return to their weight before pregnancy, difficulty in accepting the body that gains weight and the marks left on the breasts, which generates a feeling of sadness, especially in the face of the standards of beauty imposed by modern society\(^{(11,14,20)}\).
**Similarity Analysis**

Regarding the similarity analysis, it was observed that the words breast (mama) and body (corpo) were used as the central core of the distribution. The word breast connects with the words no, more and stay, while the word body connects the words being and find, as observed in Figure 2.

**Figure 2** - Similarity analysis. Vitória, Espírito Santo, Brazil, 2022

![Word Cloud](image)

Source: IRAMUTEQ. Vitória, Espírito Santo, Brazil, 2022.

**Word Cloud**

The word cloud analysis (Figure 3) has the words “breast and body” (“mama e corpo”) in the center, referring that pregnancy and breastfeeding generate significant changes in the body and breasts of women who undergo this process.
The similarity analysis reinforced the interpretation that the participants presented a view of the breast and body linked to the aesthetic changes that occurred in this process. The central word breast (mama) was linked to the word “stay” (ficar) with the characteristics swollen, dark, painful referring to changes in the breastfeeding process. And the word “more” (mais) was related to flaccidity, hard and bigger. The word “no” (não) is linked to the words want, get, and think, which demonstrates the thought about the fears and insecurities that permeate pregnancy and breastfeeding.

In turn, the central word “body” (corpo) was linked with the word “being” (estar) linked to the words now, normal and satisfied and the word “think” (achar) which was linked to the words beautiful, pregnant and taking time, alluding to the perception of the current body of the woman after the childbirth.

Body image in the context of interactive breastfeeding refers to how the woman perceives her body and the reaction of others to their appearance during this process, characterized by dynamism, personality and subjectivity\(^5\). This statement expressed in the
Interactive Theory of Breastfeeding seems to be valid in situations resulting from the similarity analysis. Studies indicate that body changes can be experienced as a distressing situation for women, related to feelings of dissatisfaction with the new body image\(^{(11,14,20)}\).

The interpretation of the word cloud indicated the position of centrality of the terms breast and body. The word “breast” \((mama)\) appears in the center of the image illustrating how significant changes in this part of the body are for women. Changes in the body and in breasts are part of pregnancy and the breastfeeding process, and attention aimed at the well-being of the child puts the concern for the body and physical form in the background, especially when the woman is happy and satisfied with the opportunity to breastfeed the child\(^{(13-16)}\).

Even though these changes are normal for the physiology of women in the gestational and puerperal period, they are often not understood in this way, negatively interfering in the way the woman perceives herself\(^{(3,4,8-11)}\). The perception of the woman suffers interference from the dynamic interaction between mother and child, as well as the biological conditions and body image can interfere in this interaction. This character of reciprocity of relationships common in the structure of the Interactive Theory of Breastfeeding seems to have been corroborated by the evidence of this research, as well as functioning as an explanatory reference for the processes experienced\(^{(5)}\).

**FINAL CONSIDERATIONS**

This study enabled the recognition of women’s perceptions about changes that occur in their body image during the breastfeeding process and characteristics of these changes.

The perception of women on their body image as satisfactory/unsatisfactory points out that body changes cover the breastfeeding process with feelings of ambiguity. Body changes are perceived by women in a personal, subjective, and complex way. Such changes proved to be significant in the lives of the women interviewed, changing the way they perceive themselves and the environment in which they are inserted.

This study allowed to think about the importance of care from health professionals who deal in the obstetric, neonatal and pediatric areas, as they are fundamental to prepare women and their families for this new reality that will be experienced, thus seeking to alleviate suffering, as well as to understand sexuality in this new moment, which was also presented as a theme that causes anguish and discomfort.

The use of elements such as propositions, existence and relational statements of a mid-range nursing theory on interactive breastfeeding seemed to be useful to better interpret the
participants’ subjective experiences and ground extrapolations that may contribute to knowledge advancement on this theme.

The description and interpretation of how women perceive their body image can provide health professionals inserted in the service or under training in the educational system with more comprehensive indications of the complexity of breastfeeding. It is assumed that this expanded perspective, which includes the perception of body image, can facilitate overcoming views that reduce breastfeeding to a process of biological and nutritional factors.

Thus, the probable benefits of understanding breastfeeding as a dynamic, interactive, and multidimensional process may imply the minimization of interruptions or abandonment of breastfeeding, satisfactorily impacting the health system and society.

As a limitation, the study was conducted in a university hospital in a capital city, which may be a reality different from other cities, although the sociodemographic data of the participants do not differ from the profile of the Brazilian population overall.

In addition, the data collection performed in the maternity sector and the Human Milk Bank may have included women who sought care for breastfeeding complications, which should be considered as a limit for the application of the results.

REFERENCES


**Authorship contribution:**
Conceptualization: Cândida Caniçali Primo, Eliane de Fátima Almeida, Marcos Antonio Gomes Brandão.
Writing - review & editing: Cândida Caniçali Primo, Marcos Antonio Gomes Brandão, Lucimar Andrade Cardoso Muri, Eliane de Fátima Almeida.

The authors declare that there is no conflict of interest.

**Corresponding author:**
Cândida Caniçali Primo
E-mail: candida.primo@ufes.br

Received: 03.22.2022
Approved: 09.26.2022

**Associate editor:**
Jéssica Teles Schlemmer

**Editor-in-chief:**
João Lucas Campos de Oliveira