Women's social representations of the smell of breast milk

Representações sociais de mulheres sobre o cheiro do leite materno

Representaciones sociales de mujeres sobre el olor de la leche materna

Gerlaine de Oliveira Leite¹
Fernanda Demutti Pimpão Martins¹
Michelline Santos de França¹
Bárbara Helena de Brito Ângelo¹
Maria Gorete Lucena de Vasconcelos¹
Cleide Maria Pontes¹

1. Universidade Federal de Pernambuco.
Recife, Pernambuco, Brazil.

ABSTRACT

Objective: To analyze women’s social representations of the smell of breast milk. Methods: A qualitative study was conducted in 2015 with 33 puerperal women in a university hospital in the state of Pernambuco, northeastern Brazil, through individual semi-structured interviews. The data collected, submitted to the IRAMUTEQ software, were interpreted in the light of the Theory of Social Representations. Results: Among the social representations, acceptance was prevalent even when the olfactory perception of breast milk was unpleasant, so that the importance of this food for children’s health stood out. Other representations were the discomfort caused by this smell and the care to minimize it, the support of partners, the detachment in interpersonal relationships, and the characterization of the smell/taste of milk. Conclusion: Acceptance was most evident among the social representations of the smell of milk. However, unpleasant perceptions were observed, evidencing that these features of human milk should be included in the guidelines for women and their families since prenatal care.

Keywords: Milk human; Olfactory perception; Social theory; Breast feeding; Nursing.

RESUMO

Objetivo: Analisar as representações sociais de mulheres acerca do cheiro do leite materno. Métodos: Estudo qualitativo, realizado em 2015, com 33 mulheres/puérperas em um hospital universitário de Pernambuco, por meio de entrevista individual semiestruturada. Os dados coletados, submetidos ao software IRAMUTEQ, foram interpretados à luz da Teoria das Representações Sociais. Resultados: Dentre as representações sociais, a aceitação foi predominante, mesmo quando a percepção olfatória do cheiro do leite era desagradável, prevalecendo a importância desse alimento para a saúde da criança. Outras representações foram o incômodo causado pelo cheiro e os cuidados para amenizá-lo, o apoio do companheiro, o desprendimento no relacionamento interpessoal e a caracterização do olfato/sabor do leite. Conclusão: A aceitação foi a mais expressiva entre as representações sociais sobre o cheiro do leite, porém constataram-se percepções desagradáveis, evidenciando que estas particularidades do leite humano devem ser incluídas nas orientações à mulher e à família desde o pré-natal.

Palavras-chave: Leite humano; Percepção olfatória; Teoria Social; Aleitamento materno; Enfermagem.

RESUMEN

Objetivo: Analizar las representaciones sociales de mujeres sobre el olor de la leche materna. Métodos: Estudio cualitativo, conducido en 2015, con 33 mujeres/puérperas en un hospital universitario de Pernambuco, por medio de una entrevista individual semiestructurada. Los datos recogidos, sometidos al software IRAMUTEQ, fueron interpretados con base en la Teoría de las Representaciones Sociales. Resultados: La aceptación fue predominante cuando la percepción del olfato de la leche era desagradable, prevaleciendo su importancia para la salud del niño. Otras representaciones fueron el incómodo causado por el olor y los cuidados para amenizarlo, el apoyo del compañero, el desprendimiento en el relacionamiento interpersonal, y la caracterización del olfato/sabor de leche. Conclusión: La aceptación fue la más expresiva entre las representaciones sociales, sin embargo se constataron percepciones desagradables, evidenciando que estas particularidades deben ser incluidas en las orientaciones a la mujer y su familia, desde el prenatal.

Palabras clave: Leche humana; Percepción olfatoria; Teoría Social; Lactancia materna; Enfermería.
INTRODUCTION

Scientific evidence has confirmed the benefits of breastfeeding to the lives of human beings. Nonetheless, despite the efforts made by several sectors of society to promote breastfeeding, children are not being exclusively breastfed during the first six months of life. Worldwide, only 34.8% of infants received breast milk during this period of life. In Brazil, this rate was slightly higher (41%) and the Northeastern region showed the worst situation in the country (37%)²³.

Breastfeeding is a complex phenomenon, as it is influenced by the historical context and social and cultural determinants, in addition to variables of a physiological, psychological and volitional nature. Therefore, it is not an instinctive and biologically natural act⁴.

The appreciation of the meanings associated with breastfeeding constructed in the experiences of women can reveal their actual needs and be an important path to understand this event. However, this requires nurses to perform more efficiently, as they must answer questions and resolve problems involved in the practice of breastfeeding, further consolidating the care provided to these women⁵⁶.

Maternal breastfeeding is widely studied, but information about the smell of breast milk should be further investigated. Understanding this peculiarity included in the context of breastfeeding is essential, as human beings have an olfactory nature, interacting with their environment through smells based on sensations that can range from pleasant to unpleasant, and from comfortable to uncomfortable⁷.

Olfactory perceptions and sensations are relevant and meaningful to both questions associated with the routine life of human beings and the nursing practice. For this reason, understanding smells, including that of breast milk, can complement actions of health education strategies performed by nursing professionals, enabling more qualified and holistic care suitable for women and families⁸.

The act of smelling breast milk can be influenced in different ways, whether such influences are scientific, cultural or social. All of them end up interfering with common sense, practices, attitudes, opinions, styles and ways of behaving, and women’s and society’s beliefs⁹⁷. The Theory of Social Representations enables this common sense to be grasped, the interpretation given by participants themselves of the reality they aim to research, enabling the understanding of attitudes and behavior of a certain social group when facing a psychosocial object. Thus, such theory promotes nursing care planning that, founded on it, enables the development of more efficient interventions, respecting specific characteristics of each social segment⁹⁸.

Discussions and investigations on the smell of breast milk, aimed at associating results with the clinical and social practice to improve the health care provided, are beneficial as such smell can be related to changes that influence women’s and families’ routine activities. Consequently, the study on Social Representations of the smell of breast milk can promote the understanding and clarification of subjective questions about this reality.

As a result, we should emphasize the need to investigate and find out how women’s social representations of the smell of breast milk occur a priori, so as to support strategies aimed at the improvement in the quality of instructions shared by the nursing team during health education actions geared towards this specific target group. Thus, this study aims to analyze women’s social representations of the smell of breast milk.

METHODS

An exploratory descriptive study with a qualitative approach was conducted with 33 puerperal women cared for in the maternity ward of the Clinical Hospital of the Federal University of Pernambuco (HC/UFPE), located in the city of Recife, PE, Northeastern Brazil. The sample size was defined during data collection, when the information originated from the set of interviews was redundant in terms of the object of study, thus reaching theoretical saturation¹⁰. During the visits to infirmaries, women were selected according to inclusion and exclusion criteria.

Participants in this study were multiparous women aged more than 18 years, with an inter-pregnancy interval of up to five years to prevent memory bias, who lived in the same residence as their husband/partner and breastfed their penultimate child for at least three months, regardless of the type of breastfeeding. In contrast, women with health conditions and/or whose children had any diseases that had prevented or hindered breastfeeding were excluded.

Data collection occurred between March and May 2015 through individual interviews guided by a previously designed semi-structured questionnaire including questions about the sample characteristics and guiding questions: How do you perceive the smell of breast milk? Could you describe the smell of your milk throughout your daily activities? Could you describe the smell of your milk in the relationship between you and your husband?

After signing an Informed Consent Form, interviews were recorded in a reserved room in the same hospital ward, lasting 15 to 20 minutes on average, and fully transcribed on the same day so that the details could be better described (laughter, pauses and crying, among other reactions). In each infirmary, only two puerperal women were interviewed, so that their responses did not influence the remaining ones. Soon after the interview, participants were asked to listen to the recording to check for content reliability and validation¹⁰.

Data on the sample characteristics were typed and analyzed in the SPSS software (Statistical Package for the Social Sciences), version 21.0, using descriptive analysis techniques (minimum, maximum, mean and simple frequency). The transcribed interviews were organized in a single corpus submitted to
IRAMUTEQ, *(Interface de R pour analyses Multidimensionnelles de Textes et de Questionnaires)*, a free-access software program of textual analysis. This software enabled the production of the Descending Hierarchical Classification (DHC), a statistical analysis that performs partitions in the corpus until the final classes are reached, as shown in the dendrogram below. Additionally, this program enables the identification of the lexical content of each of these classes. Apart from the DHC, words were associated with classes through the association of the Chi-square of words.11

This analysis was interpreted and discussed according to the framework of the Theory of Social Representations, which recognizes the subjectivity and knowledge of individuals, acquired from their contextualization. Thus, it enables the understanding and interpretation of attitudes and behavior towards the object of representation.9

This research project was approved by the Research Ethics Committee of the Health Sciences Center/UFPE, in accordance with official opinion 1526051 and following the recommendations of Resolution 466/2012 of the National Health Council. Participants selected fictional names to maintain their anonymity during interviews.

RESULTS

At the time of this study, participants were aged between 20 and 42 years, with a mean age of 29.73 years. The majority (72.7%) were cohabiting and 27.3% were married. Regarding their level of education, 51.5% and 18.2% had not completed primary and secondary school, respectively; only 9.1% had completed primary school; 18.2%, secondary school; and 3%, higher education. It should be emphasized that 66.3% were housewives and 33.7% had other jobs (hairdresser, farmer, manicurist, general services assistant, clerk, saleswoman and educator). With regard to the monthly family income, 24.2% survived with less than one minimum wage; 60.6%, between one and two; and 15.2%, between three and four. Of all study participants, 39.4% were Evangelicals; 36.4%, Catholic; 21.2% had no religion; and 3% said they were Christians.

The number of children varied from two to 14 and there was an average of 3.39 children per woman. The age of penultimate children ranged from one to five years and the mean was 3.42 years. Length of breastfeeding varied between three and 48 months with a mean of 14.73 months. The percentage of women who breastfed exclusively in the first six months was 72.7% and the percentage of those who began weaning and introducing other food in this period was 27.3%.

The textual corpus analyzed through DHC was divided into 383 text segments (TS) associated with 1,341 words that occurred 12,813 times. The DHC included 77.28% of all TSs, generating five classes. The corpus was divided into two subcorpus that, in their turn, generated two new subdivisions, one to the right, the other to the left. After this new division, classes 2 and 1 were reached to the right. The subcorpus to the left originated class 5, which, in opposition, was divided into classes 4 and 3 (Figure 1). All subcorpus represent the results of the association of predetermined words with the object named “smell of breast milk”, which were considered to be statistically significant (p < 0.05) after the Chi-square statistical test was applied.

After analyzing the dendrogram and reading the TSs of each of the classes, they were named as follows: Acceptance (Class 1), Relationship with the partner (Class 3), Smell of breast milk (Class 5), Inconvenience/Care to reduce the smell of breast milk (Class 2) and Interpersonal relationship (Class 4). Next, classes were described, following the order of division and their proportion to the total corpus.

Class 1, entitled “Acceptance”, represented 22.64% of the Elementary Context Units (ECU). This Class alludes to questions about the feeling of acceptance of the smell of breast milk, regardless of women's olfactory perception, due to the importance of milk for children attributed by them.

I got used after the smell was less intense. Soon after the child is born, you can’t really smell this raw odor. Then, as your breasts are full, this is when you begin to smell it in the diapers and everywhere else, but then you get used to it... It's normal, I've already got used to it. (F.)

[...] It's a smell you have to put up with. In my case, I always felt a bit disgusted by it, so I have to stand it, because she (daughter) was there and depended on this milk to survive (C.).

When she (daughter) was really smelling of this milk, it meant she was satisfied, with a full belly and asleep. So it was the satisfaction of saying, “Her belly is full, I don't have to worry about anything else, it's alright!” (P.)

Class 3, with 20.61% of PCU, was known as "Relationship with the partner”. Just like Class 1, husbands accepted the smell of breast milk without objections in Class 3, according to women's reports, i.e. they encouraged breastfeeding, recognized the importance of this food for the child's health and also showed curiosity and interest in tasting it.

He (husband) always helped me with this job of breastfeeding her (daughter), instead of porridge. To always give her milk and breastfeeding her. He never talked about the smell. He tasted it once. He tasted a little and said that it was good and sweet. (A.)

Despite the unpleasant perceptions of the smell of breast milk that women had, they denied any changes to the emotional and sexual relationship with their partner.
He never complained, it never changed things between us. (M.)

About the smell, he never complained... It was normal, he (husband) didn't reject anything. On the contrary, you know? We were always active, sexually speaking, and he never rejected our contact. I think it's the mother who feels more uncomfortable. (R.)

The Class named “Smell of milk”, which comprised 20.27% of all PCUs, was number 5, as it referred to the characteristics attributed to the smell of breast milk. The olfactory perception of participants varied between a smell regarded as normal, compared to other food or types of milk, and indifference.

It didn’t make a difference. It was normal like any other food, it smelled of food like instant noodles, rice, beans, pasta, meat (laughter). (M.)
Women's social representations

Leite GO, Martins FDP, França MS, Ângelo BHB, Vasconcelos MGL, Pontes CM

I smelled the milk and thought it was normal, as if it were... something like... a glass of formula milk I'd make, for example. (A.)

It didn't smell bad, it really smelled good. People say it's stinky, that's nonsense. (F.)

However, in the majority of reports, the smell was compared to unpleasant smells/odors, characterized by expressions such as "raw fish" or adjectives such as "sour", "cold", "nauseating" and "unbearable", at times associated with repulsive sensations.

It smelled cold. This smell is like that of fish, raw fish, something like it. (C.)

To me, it smelled sour. It wasn't normal at all. It smelled of something nauseating. (M.)

[...] Stinky, unbearable, it smelled of something raw! (F.)

Ah... It was a very bad smell, it was stinky. It smelled of hatching snakes, I don't know. Ah, it smelled of something old and nauseating... Like sour milk. (R.)

Additionally, it is interesting to note that, although having a negative perception of the smell of her milk, one participant was curious to taste it. Thus, the characteristic attributed to the taste was identical to the smell.

It was horrible! It tastes of sour milk. I thought it tasted sour. I still... I find it a bit sour. It has a sour smell and taste. (J.)

Moreover, women also expressed their opinion about the meaning of the smell to their children. In their perspective, breast milk must have a pleasant smell due to the infants' attitude towards this smell.

For the baby, it's always good because he (son) already knows the smell of milk... Before coming closer, they can already smell it! (J.)

I think it must be really good for him (son), because when he gets close, he already opens his mouth willingly. (R.)

As soon as he (son) smells the milk, he begins to rub his face against me, he begins to be fed through the smell (laughter), he begins to rub his face against my breast [...] (J.)

Class 2, comprising 18.92% of the PCU, was named "Inconvenience/Care to reduce the smell of milk". This Class shows women's care to minimize the inconvenience caused by this odor, as it naturally spreads as milk leaks throughout the day.

Now there must be care and hygiene too. Breasts must always be washed after every feeding. They must always be clean. (D.)

Whenever I breastfed, my breast got all sticky. That unpleasant mess that smelled of raw fish. [...] It was normal [...] I had to deal with this. (A.)

[...] I felt uncomfortable because of the smell! What can we think about this? That someone killed a fish and put it there in our breasts. The first time, when I had my daughter, I used to feel like this. (M.)

Additionally, they mentioned the importance of cleaning their body for the child's health, describing all the care adopted with the experience of breastfeeding. They emphasized care such as: breast hygiene after giving milk to a child, showering to reduce the smell of this milk, and fully drying the breast area, not allowing it to be moist.

[...] Now, as I have experience, every time my girl is breastfed, I clean it not to smell bad. Even she smells of raw fish. The important thing is to be clean, because if we don't clean the area where babies are fed, this will harm them and us [...] What matters is to be clean, they need to be healthy. (M.)

Then I had to take a shower again, it was like this: I'd breastfeed, then wash and dry my breast, things like this. Normal! It was normal because, like, when you're a mother, you must be able to deal with the baby stuff and your own daily stuff. (D.)

Class 4 was named "Interpersonal relationship", representing 17.57% of the PCUs, describing women's ideas about the relationship between the smell of breast milk and living with other people. According to participants, those who were closer to them did not mention the smell of milk, although they were not sure whether this silence was sincere or based on an attempt of not hurting them. However, women emphasized that they should not trust others' opinions about their milk, as this could harm the breastfeeding process.

[...] There is my family and my husband's family who also live nearby, but never caused any trouble for us. Well, if they meant to, they'd stay quiet, nobody ever said a word. (D.)

People say it's stinky, but if we think about this, we'll never breastfeed. (F.)

Furthermore, Class 4 reveals women's fear of causing unpleasant olfactory perceptions of milk when approaching others.
It was hard in the beginning, because I could smell in on me. Then, I'd be afraid to get closer to others. Nobody said a word and, if they meant to, they couldn't, they had to accept it. (P)

Once more, the representation of acceptance was perceived. In this Class, such feeling is connected to the acceptance of representations of the smell of milk from other individuals who were part of the daily routine of participants. Thus, an unpleasant olfactory perception could become a possible obstacle to the development of interpersonal relationships.

DISCUSSION

The information provided by participants regard the smell of breast milk as an element surrounded by relevant contexts and meanings. As Social Representations of this theme are characterized, the aim is to access common sense knowledge about this smell so as to understand its relationship with routine practices of women who breastfeed and the implications for their lives.

The representation of the smell of milk that was most often observed by women was acceptance, even when the olfactory perception was unpleasant. This is because, according to them, breastfeeding has many benefits for children's health. Such acceptance is related to the representation/action complex - dealt with by the Theory of Social Representations -, according to which each individual develops a way of acting when facing the object of representation.

Epidemiological aspects show that offering human milk to children is something that goes beyond the biological sphere, reaching the psychological-affective dimension, which promotes the strengthening of the bond between mother and child. Additionally, this practice brings advantages to mothers and society as a whole. Apart from the sum of feelings and desires that are adequate for and that promote lactation, women emphasize the importance of breastfeeding and prioritize it to the detriment of other life issues, such as the female breasts or even, as observed in this study, the bad smell of breast milk.

According to study participants, the presence of the smell of milk in the child meant their children were well fed, which made them feel satisfied and capable of standing or even becoming accustomed to and accepting this odor. The representation of this satisfaction resulting from the act of breastfeeding reveals fulfillment, gratitude and pleasure, feelings that help to change the attitude and/or behavior towards this practice.

Partners also accepted the smell of milk, according to what participants stated (Class 3). They did not express their opinions about the odor, avoiding comments that could be indelicate. Instead of rejecting it, they would support the practice of breastfeeding due to the benefits of milk to children's life. This means that parents recognize it to be essential for infant development, perceive its innumerable advantages and consider it to be the most complete food for them.

In their emotional and sexual relationship, women revealed that there were neither changes nor rejection from their partners due to the smell of milk. Participants themselves were the ones who felt uncomfortable with this odor. This could be due to the fact that olfactory perceptions to certain substances differ from person to person. Thus, what is unpleasant to some individuals may be acceptable to others. In other cultures, contrary to the results of this study, some men avoid sexual intercourse with their partners during the breastfeeding period due to unpleasant olfactory perceptions of the smell of breast milk. These beliefs, constructed from common sense, can influence couples' sexual behavior, as each individual has a unique olfactory experience.

Paternal support to breastfeeding was also emphasized among the social representations of women, even when the smell of milk was considered to be inconvenient. This strengthens the bond between mother, father and baby and encourages women to maintain breastfeeding for longer, as paternal approval of this practice is key for her success.

Although women in this study reported that their partners did not express their opinion about the smell of breast milk, they affirmed that these men were curious to taste it and described it as "tasty and sweet". The women themselves were interested in tasting their milk as well. In fact, during the puerperal period, women deal with changes in their body and sexuality. At this moment, their partner may have the desire to taste their milk. Sexuality is not restricted to sexual intercourse or reproduction, but rather integrated to an individual's life in all dimensions and undergoing changes as they experience new moments.

The taste of milk can be connected to the olfactory perception to which women attributed different characteristics. Some considered it to have a "normal" smell, similar to that of foods or other types of milk. However, in the majority of cases, their speech referred to unpleasant olfactory perceptions such as: raw fish, sour, nauseating, cold, stinky, unbearable, and a "hatching snake". Moreover, they affirmed there was a change in smell throughout the breastfeeding process.

This perception is not illusory, as breast milk is extremely variable in nutrient content, taste and smell, from day to day and from meal to meal, depending on the stage of maternal lactation, parturient woman's metabolic status, and volume of milk consumed. In addition, there is the interference from women's diet during the breastfeeding period, as the foods consumed and metabolized by the organism can change the milk's smell and taste.

In addition, the meaning of the smell of milk for children was mentioned, emphasizing the fact that this smell called the children's attention. The stimulus caused by such odor has advantages for newborns in terms of maturity and development of suction. Moreover, there are considerations about sensory stimulation (smell, touch, sight) of newborns that occur during...
the intimate contact of breastfeeding, which promotes the involvement between woman/mother and child and the formation of an emotional bond. Women’s representations of the smell of milk help to improve the understanding of meanings, concepts and views originating from the experience with this odor during lactation and the understanding of the subjectivity of breastfeeding. Such representations can contribute to the development of educational practices promoted by the nursing team, so that they are more adequate to the needs of this specific group of people, allowing them the chance to deal with the smell of milk more comfortably.

CONCLUSION

The smell of milk was associated with the odors of certain foods or regarded as unpleasant, although the feeling of acceptance of this smell predominated, due to its benefits to children’s health. Aiming to reduce odors with different characteristics that cause discomfort, lactating women care for their body hygiene more frequently, so that the smell of milk is associated with that of one’s own body. Women demonstrated detachment from the judgments about the smell of breast milk made by other individuals, so that this would not interfere with breastfeeding, thus encouraging interpersonal relationships. According to them, the emotional and sexual relationship of couples did not undergo changes, as spouses accepted the smell of milk, supported the practice of breastfeeding and recognized the importance of this food for their children’s health. Additionally, the presence of such milk aroused the interest of both men and women in tasting it.

Thus, new health care strategies that provide a broader view of breastfeeding must be developed, including aspects associated with the smell of breast milk. This is because knowledge about olfactory issues can contribute to the planning of Nursing and health actions that better meet the needs of women-mothers who experience breastfeeding, aiming to reduce the discomfort caused by milk odors and to help to maintain the practice of breastfeeding, the bond between mother and child, interpersonal relationships and women’s well-being.

The limitations of this study were associated with the performance of interviews with a specific group of women/mothers in a certain reality, not enabling the results to be generalized. Thus, it is recommended that new studies with participants such as husbands/partners and/or other members of women’s social network should be conducted, aiming to increase knowledge about social representations of the smell of breast milk. Furthermore, this theme must be further investigated due to the unpleasant olfactory perceptions of breast milk and their possible influence on women’s routine life, as observed in the present study. Finally, the reduced number of studies found show that greater investments must be made in scientific production to further knowledge in this area, thus supporting Nursing and health actions that better meet the needs of this group of women.