# **Original Article**

# Representations of women milk donors on donations for the human milk bank

Representações de mulheres doadoras de leite sobre a doação para bancos de leite humano

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#### Abstract

Human milk banks (HMBs) have difficulty maintaining and increasing their stocks, and the number of women enrolling as members remains low. The present qualitative study, based on social representation theory, aimed to understand women's representations of the milk donation experience. The data were collected through semi-structured interviews conducted in 2013. In total, 12 women aged 18 to 39 years old participated in the study. Most were primiparous, married or living with a partner, housewives, completed high school, and belonged to lower economic classes. Four categories emerged from the testimonies: human milk donation; representations about human milk banks (HMB); the importance of breastfeeding for the baby and for one's conceptualization as a mother; and prenatal care and donation awareness. The main reasons for donating were representations that value breastfeeding, human milk, and the donation act. These mothers had difficulties donating, but the rewarding feeling, the value of this practice, and the support they received from people important to them helped with the donation. The findings related to the value of the donation and breastfeeding provide ways to effectively encourage and motivate potential donors, achieving comprehensive care starting from the prenatal period.

**Keywords:** milk banks; human milk; donor selection; qualitative research.

#### Resumo

Bancos de leite humano têm dificuldades para manter ou aumentar seus estoques, pois a adesão das mulheres ainda é baixa. Este é um estudo qualitativo embasado na teoria das representações sociais. Objetivou-se compreender representações de mulheres sobre a experiência da doação de leite. Foram realizadas entrevistas semiestruturadas durante o ano de 2013. No total, 12 mulheres com idades entre 18 a 39 anos participaram do estudo. A maioria delas era primípara, casada ou vivia com o companheiro, não trabalhava fora de casa, tinha concluído o ensino médio e pertencia a classes econômicas baixas. Quatro categorias emergiram dos depoimentos: doação de leite humano; representações sobre o banco de leite humano; importância do aleitamento materno para o bebê e necessário para ser mãe; cuidados no pré-natal e conscientização da doação. As principais razões para doar relacionavam-se a representações que valorizavam a amamentação, o leite humano e o ato de doar. Essas mães tiveram dificuldades durante a doação, mas o sentimento gratificante, o valor dessa prática e o apoio de pessoas importantes ajudaram para a efetivação da doação. Os achados sobre o valor da doação e da amamentação fornecem subsídios para ações efetivas que motivem potenciais doadoras, possibilitando atenção integral desde a época do pré-natal.

Palavras-chave: bancos de leite; leite humano; seleção do doador; pesquisa qualitativa.

Study carried out at Ouro Preto (MG), Brazil.

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#### INTRODUCTION

Concern about providing an adequate supply of human milk for premature infants or debilitated infants with low birth weights who do not receive milk from their own mothers has led women who are willing to donate their excess of breast milk to human milk banks (HMBs)<sup>1,2</sup>.

In addition to its importance in child nutrition, maternal milk has been emphasized in premature infant diet due to its clinical importance<sup>3</sup>. The higher antioxidant protection of human milk compared with its substitutes makes it important in disease prevention during maturity, protecting against conditions as necrotizing enterocolitis, bronchopulmonary dysplasia, intraventricular hemorrhage, and prematurity retinopathy<sup>4</sup>.

Some factors associated with donation were excessive milk production and knowing that another baby needs the milk. Despite its importance, human milk donation is still minimally explored in the scientific literature<sup>1,5,6</sup>. Research is important in Brazil, where a national breastfeeding policy has been promoted.

Given the lack of studies, researchers have emphasized the need for more research on human milk donation that highlights donors' demographic profiles and their motivations, feelings, attitudes, and beliefs concerning this practice. In view of the various psychosocial factors involved in human milk donation, the present study aimed to understand milk donors' representations of the donation experience<sup>1</sup>. The present study is expected to contribute to the elaboration of strategies for raising the awareness of potential donors.

#### METHODOLOGY

The present study used a qualitative approach based on social representations theory (SR). SR models are perceived from the outside, from the relationships of individuals and groups on objects, actions, and situations established by numerous social interactions<sup>7</sup>.

From the perspective of Moscovici<sup>7</sup> and Jodelet<sup>8</sup>, social representations can be seen as a socially elaborated and shared form of knowledge, with a practical objective that contributes to the construction of a reality common to a social group.

The participants were regular human milk donor mothers of the Santa Casa da Misericordia Milk Bank of Ouro Preto, Minas Gerais, Brazil, from March to September of 2013. The first author invited the participants while accompanying the weekly routine service responsible for collecting the donated milk. Following verbal consent, a home visit was scheduled at the mutual convenience of the researcher and the mother. Semi-structured interviews were conducted in the home, with the aid of a guiding script to approach the experiences of these women regarding the decision to donate, as well as their practical experience in donating, which provided an opportunity to understand the representations constructed by these women regarding donating

their milk. The interviews were audio-recorded and transcribed for further analysis.

The number of participants was defined *a posteriori* using data overflow, and the data were examined concurrently with the interviews<sup>9</sup>.

The interviews content was interpreted using narrative structural analysis<sup>10</sup>. The in-depth interview includes disordered facts of reporting, justifications, and characters; when these discursive objects and their sequences are reconstructed and interpreted by the researcher, unveiling dualities, paradoxes, and representations. The data data technique based on Blanchet and Gotman<sup>11</sup> provides three steps analysis. In the first step, vertical reading searched for the global sense of each interview; the second step involves horizontal. Each speech object was numbered in sequence and then regrouped according to the themes addressed. In the third step of the analysis, a transversal reading was performed to reveal the commonalities and differences in the women's interviews.

Socioeconomic and demographic information was collected to contextualize the participant group. The Brazil Economic Classification Criterion (Critério de Classificação Econômica Brasil – CCEB) from the Brazilian Association of Research Companies (Associação Brasileira de Empresas de Pesquisa – ABEP) was used to define each donor's economic class. This system scores each appliance owned by the family, the head of household's education level, and whether the family has a maid. By totaling these points, an estimate of the monthly family income is obtained and is translated into an economic class<sup>12</sup>. This demographic information was analyzed using the program *Epi Info version 3.5.2*. Epi Info is a public domain software created by the CDC (Centers for Disease Control and Prevention) facing the health sector in the epidemiology.

The present study was approved by the Research Ethics Committee of the Federal University of Ouro Preto (Universidade Federal de Ouro Preto) according to protocol No. 143/2012, as provided in resolution 466/12 of the National Health Council of the Ministry of Health (Conselho Nacional de Saúde do Ministério da Saúde), which was in effect at the time of the study<sup>13</sup>. All of the participants signed an informed consent form before they were included in the study, and none of them refused to participate in the interviews.

# RESULTS

The group under investigation consisted of 12 human milk donors. The women's ages ranged from 18 to 39 years (mean = 25.75; standard deviation [SD] = 7.04). They were mostly primiparous (83.3%) and married or living with a partner (75%); most were housewives (41.7%) and had completed high school (91.7%).

Regarding economic class, 16.7% belonged to the B2 class, 50% to the C1 class, and 33.3% to the C2 class. All of the

participants had received prenatal care, and their numbers of prenatal medical appointments ranged from 7 to 12 (mean = 9.8; SD = 1.4). Of the 12 interviewees, only one had been a human milk donor on another occasion, and one had previously been a blood donor. Regarding social class, there were no significant differences within the group.

The following themes were identified following the statement analysis.

#### Human milk donation

Most of these women made the decision to donate during the postpartum period. Only one woman who had already donated human milk and one who had visited the HMB while she was pregnant made the decision to donate while pregnant:

I got to know the whole area: the maternity hospital and the delivery room. And she (a professional from the HMB) showed me the milk bank. Then, I became interested: If I have a lot of milk, I will donate. (D6)

The representation of human milk donation as a way of "helping others" and "saving lives," characterized as altruism, were among the reasons that led women to donate:

Because milk is life, [...] by donating even a little bit of milk, sometimes you save more than one life and satisfy the hunger of more than one child. (D2)

I think that even if you donate a little bit, you are already saving many lives. (D8)

For the interviewees, in addition to helping the child who receives the milk, the donation represented helping mothers who were unable to breastfeed:

[...] Some mothers don't produce milk. Therefore, we who have plenty of milk donate to help them. (D11)

This altruism was increased by the women's social and cultural environment, as expressed by the terms "raised," "education," and "religion," and by witnessing during the postpartum period a situation in which a child needed milk from the HMB.

For the participants, breast milk represented "life" and an "important," "healthy," "rich," and "required" substance for the child. Thus, for some women, the donation was an alternative chosen to avoid waste.

The satisfaction that came from the rewarding experience of donating milk and blood, and the opportunity to follow another woman's milk donation process were also strong incentives for donation.

Another important facilitator to decide for the milk donation was support. The following people were sources of such support: health-care professionals from the human milk bank; the participant's mother, husband, sisters, neighbors, and sisters-in-law; television advertisements; and prenatal care nutritionists.

Some women faced difficulties using the donation milking technique, but these difficulties were quickly remedied with support from people in their social network, including health-care professionals from the HMB and the participants' sisters.

The women also faced other difficulties, such as delays during the milking process, mainly due to the necessary hygienic and sanitary care, as well as difficulty in reconciling childcare and milking.

The women reported the desire to be human milk donors on other occasions, and the donation process was generally experienced as pleasurable and rewarding.

# Human milk bank: representations of the service

Of the women interviewed, 5 had received information about the HMB before delivery. This information came from people in their social network that had some connection with the service and from television advertisements and posters displayed in the municipality's health units. The other seven women learned about this service postpartum, while they were still hospitalized, through professionals from the HMB:

*I had never heard about the HMB. I heard about it there* (in the hospital) *and learned how it works.* (D7)

The representations of the HMB were always centered on the child and on the HMB as a service that "saves lives" by collecting, treating, and distributing human milk, which can be observed in the following statements:

They take it here at the house, store it, process it, and give it to children who need it at the hospital. (D9)

In the testimonies, it became evident that women rely on the quality of the service provided by the HMB.

Breastfeeding: important for the baby and necessary for being a mother

Due to the close relationship between breastfeeding and human milk donation, the breastfeeding experience emerged naturally from the testimonies of these women. The act of donating is closely linked to the act of breastfeeding, given that milk donation can only be experienced in association with breastfeeding at a particular moment in a woman's life, namely, motherhood.

Breastfeeding is represented as something that should be part of the life cycle of every woman who wants to be a mother, as symbolized in the following statement:

It's like a cycle: You have children, you breastfeed, you feed, you see them walk. It's the cycle; that's life. In my opinion, a mother has to do all that. Not breastfeeding means not being a complete mother. (D6)

In contrast, being unable to breastfeed was represented by these women as something frustrating and sad that impairs the mother's role. As a mother, I'd feel bad about not having enough milk to give. Gee! I wonder what it's like being a mother and not having milk to give to the child. It's really bad! (D6)

For these women, breastfeeding is characterized by the "pleasure" of feeding their child and is a practice that provides several benefits. The benefits identified by these women were the practicality of breastfeeding, the "low cost" of breast milk, the nutritional and immunological advantages of the milk, the fact that the milk "satisfies" the child and favors his/her growth and development, easier postpartum weight loss, and greater closeness to the child.

Most of these women had common difficulties when they started breastfeeding, such as incorrect latching and mammary complications. For them, the support they received was essential for overcoming these difficulties and establishing breastfeeding.

Health professionals from the HMB were the main sources of support and often pain relief:

At the beginning, breastfeeding caused injury and pain, [...] and she (the professional from the HMB) guided me; she helped me a lot. She said it was normal. And then it started to get better. (D8)

Husbands and sisters-in-law also offered support; however, individuals who interfered with breastfeeding and encouraged early weaning were also identified, as observed in the following statements:

[...] My mother used to say: If he is a little upset, you can give him a little bit of tea or something. (D4)

Some acquaintances have said to me: 'Oh, if I were you, I'd already wean him off at 6 months; it's time to wean him off.' [...] They say that if I don't breastfeed, I'll have more freedom, I'll be able to get out. Others say: 'Oh, no! I'll breastfeed only as a last alternative because one breast gets bigger than the other.' (D4)

According to the participants, the benefits of breastfeeding greatly exceed the biological efforts and include psychosocial and cultural aspects.

# Prenatal care and donation awareness

It is worth mentioning that the vast majority of the interviewees learned about the HMB only during the postpartum period, and those who knew about it during pregnancy did not learn about it during their prenatal care.

When asked about how their prenatal counseling influenced the possibility of their donating any milk surplus, only four women affirmed having received some type of information about the possibility of donating their excess milk. Only one of those 4 was informed about the importance of donating milk and how to donate:

During my prenatal care, the doctors and nurses did not talk about it; only the nutritionist did. She told me about the importance of donating, how it worked, and that they would pick up the milk at the house. (D10)

The other participants noted that this information was insufficient:

She (the doctor) did not explain; she just said, 'There's a milk bank over there; they will explain it to you better when you go over there to see it.' (D6)

The other women affirmed not having received any type of information:

They should talk about it during prenatal care, encourage it. They don't encourage us to donate. They don't say anything. (D9)

The women showed concern about the HMB's insufficient milk supply for children who need it. The testimonies make it clear that the decision to donate milk is personal for each woman and must be supported by information and discussions of their opinions about donating because raising awareness makes this decision easier.

However, the participants said they did not feel responsible for recruiting new human milk donors. According to the interviewees, this role should be performed by health service professionals, especially those from the basic health care service:

I think more encouragement during prenatal care would be important – talking about why donate, how to donate – because many people have a lot of milk and don't donate because they don't know how to do it. And waiting until we get to the hospital to talk about it is bad because, in the postpartum period, we have a lot on our minds; there are a lot of concerns. It would be better to talk about it before. (D10)

### DISCUSSION

The sociodemographic characteristics of the women who participated in this study were similar to those of participants in other studies of human milk donors. There was a predominance of married donors or donors living with a partner<sup>1,5,14-17</sup>, primiparous women<sup>1,2,5,18</sup>, women who do not work outside the home<sup>16,17</sup>, and women with high levels of education<sup>2,5,14,18</sup>.

Studies have indicated that mothers with higher levels of education are usually associated with positive breastfeeding behavior<sup>19</sup>. The education level of this group of women might have contributed to their understanding of the need for and importance of breast milk for children's adequate growth and development and may have made it easier for the women to decide to donate.

Regarding economic class, these women had low purchasing power. Human milk donors with the least favorable socioeconomic status were also found by Galvão et al.<sup>15</sup>. Conversely, Alencar and Seidl<sup>5</sup> found varying socioeconomic levels among donors.

As in other studies<sup>2,16</sup>, most of the women in our study did not mention other types of donations.

The testimonials showed that the interviewees' major reason for donating milk was their representations of this practice. However, continuing to construct these representations is still necessary so that these women can take active roles in their social relationships with other mothers who can donate milk, assuming that this population also receives health care services. To do this, it is necessary to awaken the autonomy of women.

Donation is one of the oldest and most fundamental trade forms for maintaining social bonds, and it has existed since the time of oral societies, as analyzed by Marcel Mauss<sup>20</sup>. From anthropologically different realities, the author theorizes about the dialectic between donation as a voluntary act that occurs reciprocally or unilaterally and as a business that corresponds to the market, with its explicit dimensions of interest and negotiation.

Donation is a complex phenomenon and is permeated with ambiguity; its value to the donor is symbolic. The donor finds gratification in self-esteem, in the belief of God's protection, in divine love taking the form of neighborly love, or even in the correction of social<sup>21,22</sup> or "biological" imbalances, such as the circumstance of "having too much milk," unlike mothers who had none or were unable to breastfeed.

Altruism, which emerged with abundance in our study, was reported as the main motivation for the donation of human milk in other investigations with donor mothers<sup>2,5,17</sup>. In a study by Galvão et al.<sup>15</sup>, the main motivation for donating was discomfort from breast engorgement.

The pleasurable and rewarding experience that these women had with milk donation is a relevant finding because these donors may play an important role in attracting potential donors by reporting their experiences<sup>2</sup>.

Mothers consider breastfeeding as a natural to life and necessary for motherhood. The overvaluation of breastfeeding makes these women regard mothers who cannot or will not breastfeed as inferior and incomplete, which reminds us of a predominant myth of our culture: the myth of maternal love as a feeling innate to women, which creates the image of the "good mother" who is willing to sacrifice herself for the sake of her child<sup>23</sup>.

Badinter<sup>23</sup> argues that maternal love is actually a conquered feeling in which, from early in life, a variety of discursive practices molds, encourages, manipulates, and produces in women the desire to be a mother as a "natural talent." This argument is proven in the face of the extreme variability in this feeling depending on the mother's culture, ambitions, or frustrations. Thus, contrary to widespread belief, this feeling is not deeply engrained in the female nature.

The interviewees had breastfeeding complications in common. However, with the support of their social network, they were able to overcome these difficulties and were able to breastfeed and donate their excess milk. The women's social networks during the maternity period had great influence on their decisions

about how to feed their children. The social network works in an extremely complex way<sup>24</sup>.

Despite support from HMB health professionals during donation and breastfeeding, it is important to highlight that the representations of the HMB are centered on children and do not refer to this support.

Since the last third of the 18th century, the high infant mortality rate started to become a focus for the state, which regards individuals as resources for its prosperity. The child became a privileged object of attention, and mothers had to be convinced to focus on forgotten tasks related to childcare because they had sacrificed child rearing to occupy their place and rank at the court or in their social lives, and they refused to breastfeed their children. Moralists, administrators, and doctors offered their most subtle arguments to persuade women to give themselves to their children. As a token of love, this "new mother" was encouraged to breastfeed her children again, making the children's welfare her priority<sup>23</sup>. From that time onwards, the representation of breastfeeding as fundamental for the child was constructed, and it persists to this day. With the advance of scientific knowledge about breastfeeding, these representations have strengthened; consequently, mothers who cannot breastfeed may be made to feel guilty.

All of the interviewees in this study received prenatal care as established by the Ministry of Health, which recommends at least six prenatal appointments and one puerperal appointment for the prenatal care of normal-risk pregnant women<sup>25</sup>. In a study conducted by Lourenço et al.<sup>2</sup>, 94.6% of women donors had 6 or more appointments during the prenatal period. The author assumed that this finding indicates that the women received quality prenatal care, which was responsible for their ability to identify their donor status.

In the present study, however, this relationship was not found. Despite the importance of primary health care in health promotion, the testimonials showed that these women received little or no support for this practice during the prenatal period. This lack of support reflects a lost opportunity for basic health care professionals to raise awareness and recruit women for milk donation.

The lack of information provided by the health service has also been identified as an important obstacle for organ donation<sup>26</sup>.

# **■ FINAL CONSIDERATIONS**

The representations revealed that the motivations of these women for donation included valuing breastfeeding, human milk, and the practice of giving.

From the analysis of the interviews emerged an understanding that the value the participants placed on breastfeeding, human milk, and the practice of donation are the main motivations for donating human milk.

Although the interviewees experienced some difficulties donating their milk, the rewarding feeling, the value the women placed on the act of donating, and the support they received from people important to them were essential to pursuing milk donation.

The findings also provide clues about possible obstacles to attracting potential donors by revealing weaknesses in the completeness of the health services provided to these women during prenatal care in relation to milk donation.

The limitation in this study refers to limit the qualitative technique, that is, the findings cannot be generalized, and they are specific historical context investigated.

Other studies on the same subject should be performed to understand the representations of women who could donate human milk but do not and should be aggregated with the results of the present study.

# REFERENCES