

# Complaints from nursing mothers seeking care in a human milk bank and associated factors

## Queixas de nutrizes que buscam atendimento em um banco de leite humano e fatores associados

Lara Thaianne Souza Pereira<sup>1</sup> • Taynara Cassimiro de Moura Alves<sup>2</sup> • Nathalya da Silva Louro<sup>3</sup>  
Nayara Franklin Cesar<sup>4</sup> • Juliana das Dores Ferreira<sup>5</sup> • Kauhan Ribeiro de Paula<sup>6</sup> • Marília Cordeiro de Sousa<sup>7</sup>  
Flaviana Vieira<sup>8</sup> • Janaína Valadares Guimarães<sup>9</sup> • Amanda Santos Fernandes Coelho<sup>10</sup>

### RESUMO

O objetivo deste artigo é analisar as queixas de nutrizes que buscaram atendimento em um BLH e fatores associados. Trata-se de um estudo descritivo, analítico, transversal, retrospectivo, cuja população é composta por 1.709 nutrizes que buscaram atendimento no período de Janeiro a Dezembro de 2016. Para a coleta de dados, utilizaram-se as fichas de atendimento do BLH. As principais queixas que levaram as nutrizes a buscarem atendimento no BLH relacionam-se à dificuldade com a técnica de amamentação (41,9%) e a problemas mamários, como o ingurgitamento mamário (27,1%) e o trauma mamilar (18,1%). A necessidade de auxílio na técnica de amamentação esteve associada às seguintes condições relativas à nutriz: ser procedente da capital ( $p=0,001$ ), apresentar mais de oito anos de estudo ( $p=0,040$ ), ter uma ocupação ( $p=0,010$ ), ser primípara ( $p<0,001$ ), optar pela realização de parto cesárea ( $p<0,001$ ) e ter experiência prévia com amamentação ( $p=0,004$ ). Houve associação entre ingurgitamento mamário e primiparidade ( $p=0,038$ ), além do fato de a nutriz ter contado com o apoio ao aleitamento materno na maternidade ( $p=0,021$ ). O estudo possibilitou verificar a importância dos BLH no processo de lactação, um período em que as mulheres ficam ansiosas, necessitam de informações confiáveis e apresentam muitas queixas em relação à lactação.

**Palavras-chaves:** Aleitamento materno, Bancos de leite, Saúde da mulher.

### ABSTRACT

The aim of this article is to analyze the complaints of nursing mothers who sought care in an HMB and associated factors. It is a descriptive, analytical, cross-sectional, retrospective study whose population is composed of 1,709 nursing mothers who sought care in the period from January to December 2016. Data collection was performed using BLH care records. The main complaints that led the nursing mothers to seek care at HBL were related to difficulty with the breastfeeding technique (41.9%) and to breast problems such as breast engorgement (27.1%) and nipple trauma (18.1%). The need for breastfeeding technique was associated to the following conditions related to nursing: coming from the capital ( $p = 0.001$ ), presenting more than eight years of study ( $p = 0.040$ ), having an occupation ( $p = 0.010$ ), being ( $p = <0.001$ ), to have a previous cesarean section ( $p = 0.001$ ) and to have previous experience with breastfeeding ( $p = 0.004$ ). There was an association between breast engorgement and primiparity ( $p = 0.038$ ), in addition to the fact that the mother had support for breastfeeding in the maternity ward ( $p = 0.021$ ). The study made it possible to verify the importance of BLH in the lactation process, a period in which women become anxious, require reliable information and have many complaints regarding lactation.

**Keywords:** Breastfeeding, Milk banks, Women's health.

### NOTA

<sup>1</sup>Obstetric nurse Uniprofessional Residency Program in Obstetrical Nursing, Maternal and Child Hospital (HMI), Goiás State Health Department - Goiânia (GO). E-mail correspondence: biomedlara@gmail.com

<sup>2</sup>Obstetric nurse Uniprofessional Residency Program in Obstetric Nursing, Maternal and Child Hospital (HMI), State Health Secretary of Goiás - Goiânia (GO). E-mail to correspondence: taycmouraa@gmail.com

<sup>3</sup>Obstetric nurse Uniprofessional Residency Program in Obstetrical Nursing, Maternal and Child Hospital (HMI), State Health Secretary of Goiás - Goiânia (GO). E-mail for correspondence: nathalyas@gmail.com

<sup>4</sup>Obstetric nurse Uniprofessional Residency Program in Obstetrical Nursing, Maternal and Child Hospital (HMI), State Health Secretary of Goiás - Goiânia (GO). E-mail for correspondence: fcayara@hotmail.com

<sup>5</sup>Obstetric nurse Uniprofessional Residency Program in Obstetrical Nursing, Maternal and Child Hospital (HMI), State Health Secretary of Goiás - Goiânia (GO). E-mail correspondence: julianaddferreira@hotmail.com

<sup>6</sup>Obstetric nurse Uniprofessional Residency Program in Obstetrical Nursing, Maternal and Child Hospital (HMI), Goiás State Health Department - Goiânia (GO). E-mail for correspondence: kauhan\_25@hotmail.com

<sup>7</sup>Master in Nursing, PhD student in the strictu-sensu postgraduate program at the Faculty of Nursing, Federal University of Goiás. E-mail correspondence: maac-sousa@hotmail.com

<sup>8</sup>PhD, Faculty of Nursing, Federal University of Goiás. E-mail correspondence: flavianamori@gmail.com

<sup>9</sup>PhD, Faculty of Nursing, Federal University of Goiás. E-mail correspondence: valadaresjanaina@gmail.com

<sup>10</sup>Coordinator of the Uniprofessional Residency Program in Obstetric Nursing, Maternal and Child Hospital (HMI), Goiás State Health Department - Goiânia (GO). E-mail correspondence: amandasantosp@yahoo.com.br



## INTRODUCTION

Breast milk has all the nutrients needed to feed the newborn, has an important role in strengthening immunity, is able to protect the body against numerous infections and helps in the healthy growth of the baby. In addition, breastfeeding provides unique moments between mother and child, who know each other <sup>(1,2)</sup>.

Breastfeeding is a practice that involves biological, physiological, financial, psychological and socioculturally expected <sup>(3)</sup>. Many nursing mothers report this experience as the most pleasurable sensation in life, but other women, although aware of the importance, are unable to breastfeed <sup>(4)</sup>. In many cases, due to lack of experience, women's occupation, together with information deficits and, consequently, the occurrence of interferences, leading to early weaning <sup>(5)</sup>.

Therefore, some problems faced by the binomial - such as poor sucking or sucking, delayed "milk descent", flat or inverted nipples, breast engorgement, nipple trauma, nipple pain and mastitis - may be important causes of breastfeeding, if not identified and treated early <sup>(6)</sup>. The study by Silva et al. <sup>(7)</sup> pointed out that half of the number of nursing mothers reported having sought care and guidance in other services after hospital discharge.

In this context, the human milk bank (BLH) is considered a reference center to support breastfeeding. It is known that it is a specialized center linked to a hospital for maternal and/or child care. Among the activities are the collection, selection, classification, processing, quality control and distribution of human milk. The nurse and the infant also receive guidance on self-care with the breast, care for the correct technique of breastfeeding, milking and storage of milked milk at home <sup>(8)</sup>.

It is known that many nursing mothers do not receive effective guidelines related to breastfeeding during the gestational period, which may make it more difficult for them to familiarize themselves with the condition itself. Although there are researches, there are gaps in the literature about the reasons that lead the mothers to seek care in the HMB and on the factors associated with the main demands. Investigations conducted in this sense are relevant, considering the potential for preventive actions or early management in prenatal and maternity care.

Therefore, this study aims to analyze the complaints of nursing mothers seeking care in a human milk bank, taking into account the factors associated with the demands during the lactation period.

## METHOD

It is a documentary, descriptive-exploratory and retrospective study, and was conducted with secondary data from an HBB linked to a reference hospital in high-risk gestation in the state of Goiás.

The population was composed of 1,709 nursing moth-

ers who sought care at the HBL from January to December 2016. Data collection was performed between June and August 2017. The inclusion criteria were the nursing mothers served as external demand, independently of age. The exclusion criteria were the nurturers to meet the internal demand of the institution, due to hospitalization (their own or the child's).

To collect data, the BLH service records were used, in which the sociodemographic variables (age, municipality of residence, naturalness, education and occupation) and obstetric variables (number of birth, delivery route, support for breastfeeding maternal breastfeeding in the delivery maternity, breastfeeding in the previous gestation and prenatal care), as well as the complaints that led the mothers to seek the HMB, the procedures received, the number of visits per woman and the main professionals who attended these mothers.

The data were transferred directly to the Microsoft Excel® 2010 program, so that they were organized and analyzed descriptively, with the use of frequencies, averages, percentage and standard deviation. The data were exported to the Statistical Package for Social Sciences (SPSS), version 22, for inferential analysis. Statistically significant differences were observed in which p was less than 5% ( $p < 0.05$ ). For this study, we used the Chi-square test with Yates correction.

The study was approved by the Research Ethics Committee of Hospital Materno Infantil, with Opinion no. 2,102,028 and CAAE: 66664517.7.0000.5080. The authors ensure the reliability and confidentiality of data, as recommended by the National Health Council, through Resolution 466/2012.

## RESULTS

The average age of the mothers was  $29.8 \pm 5.4$  years, the majority coming from the capital (74.0%), with more than eight years of study (96.0%) and occupation (88.0% %).

Regarding the obstetric characteristics, it was verified that almost all the nurses performed the prenatal care (99.6%), and the delivery route prevailed cesarean (83.0%). In addition, the majority of mothers were primiparous (68.0%). In the maternity of delivery, 55% of the mothers received support for breastfeeding. Of those who reported being multiparous, 65.1% breastfed their children.

The main complaints that led the mothers to seek care in the HMB were related to breast problems (55.7%) and difficulties with the breastfeeding technique (41.9%), whose most common procedures are, respectively, the breastfeeding technique (position, handle and suction) (27.4%) and resolution of breast problems, mainly with breast massage and milking (22.4% and 46.0%) (Table 1). The other complaints related to BLH care were: lactation inhibition due to infant death (0.3%), baby with cleft palate / cleft lip (0.03%) and guidelines for weaning (0.6% %).

In the assessment of the breastfeeding technique, there was an association between socio-demographic variables - Goiania origin, more than eight years of study, occupation of formal or informal work - and obstetric variables - primiparity, cesarean birth and previous experience with breastfeeding (Table 2).

In the analysis of the main breast difficulties with sociodemographic and obstetric variables, there was a statistically significant relationship between breast engorgement, primiparity and support to breastfeeding in the delivery maternity (Table 3).

With regard to nipple trauma, there was almost no significant association between the absence of this breast problem and residence in the capital and adequate prenatal care (Table 4).

The majority of the nursing mothers sought only one service from the BLH (76.0%), followed by two (17.0%), three or more visits (7.0%). The professionals who most attended these nursing mothers were members of the nursing team (95.0%).

## DISCUSSION

Currently the number of HMB is growing in countries with large populations, such as India and Russia, in Brazil the situation is no different. The high demand of patients in large hospitals makes it appropriate for BLH facilities to be used to obtain donors<sup>(9)</sup>. Nurses using BLH recognize it

as a reference center in support of breastfeeding, which is important in helping the complications and, consequently, in the prevention of more serious breast complications<sup>(10)</sup>.

In the present study, the search for BLH care related to breastfeeding technique was associated with higher schooling ( $p = 0.040$ ). Women with more years of schooling tend to breastfeed longer, probably because the degree of knowledge or the ease of learning about what is passed on to the importance of breastfeeding interferes positively and generates the search for access to information<sup>(11)</sup>.

A ocupação da nutriz também foi um fator associado à busca de atendimento no auxílio à técnica de amamentação ( $p = 0,010$ ). Pode-se sugerir que a proatividade dessas nutrizes colabora para que a escolha do tipo de apoio em amamentação seja especializada e qualificada. É notória a importância da licença maternidade, na medida em que as nutrizes podem ter melhores condições para manter o aleitamento materno exclusivo durante esse período<sup>(12)</sup>, pois se sabe que o trabalho materno no puerpério contribui significativamente para ocorrência de interrupção do aleitamento materno exclusivo<sup>(13)</sup>.

Primiparity was associated with the search for breastfeeding assistance ( $p = <0.001$ ). The systematic review by Vieira et al<sup>(14)</sup> emphasized that among the factors associated with breastfeeding intention, primiparity was a prominent position and was positively associated in four of the six studies. Primiparas are more susceptible to dif-

**TABLE 1 – Complaints of care and procedures in nursing by the BLH, in a Public Hospital of the State Network of Goiás, Goiânia, GO, Brazil, 2016.**

Complaints	f	%
Breastfeeding technique (position, handle and suction)	1.268	41,9
Breast engorgement	819	27,1
Nipple trauma	548	18,1
Hypogalactia	246	8,1
Mastitis	73	2,4
Baby with low weight gain	42	1,4
Others	28	1,0
<b>Total</b>	<b>3.024</b>	<b>100,0</b>
Procedures		
Position, grip and suction guidance	1.345	27,4
Breast massage	1.098	22,4
Manual milking	1.073	21,9
Mechanical milking	769	15,7
Milk of relief	410	8,4
Relation/Translaction	130	2,7
AM orientation for return to work/study	51	1,0
Guidance for donating human milk	24	0,5
<b>Total</b>	<b>4.900</b>	<b>100,0</b>

Note. f: frequency of cases. %: percentage. AM: Breastfeeding

Source: survey data.



**TABLE 2 – Association between sociodemographic / obstetric variables and breastfeeding technique, at a Public Hospital of the Goiás State Network, Goiânia, GO, Brazil, 2016.**

Variables	Breastfeeding technique				P value
	Sim		Não		
	n	%	n	%	
<b>Age</b>					
≤ 35	988	57,8	356	20,8	0,241*
> 35	280	16,4	85	5,0	
<b>Municipality</b>					
Goiânia	963	56,7	300	17,7	0,001*
Others	296	17,4	138	8,2	
<b>Schooling</b>					
≤ 8 years	36	2,2	22	1,3	0,040*
> 8 years	1.189	72,3	398	24,2	
<b>Occupation</b>					
Employed	1.078	66,5	350	21,6	0,010*
Unemployed	127	7,9	64	4,0	
<b>Number of births</b>					
1 <sup>st</sup> time	863	52,9	246	15,1	≤0,001*
2 <sup>nd</sup> (+) time	349	21,4	172	10,6	
<b>Type of birth</b>					
Cesarean section	1.067	63,4	325	19,3	≤0,001*
Vaginal delivery	183	10,9	108	6,4	
<b>AM support in childbirth</b>					
Yes	651	43,0	189	12,5	0,362*
No	508	33,5	166	11,0	
<b>Previous AM</b>					
Yes	214	54,0	134	33,7	0,004*
No	41	10,3	8	2	
<b>Pre-natal</b>					
Sim	1.216	73,9	422	25,7	0,792*
Não	5	0,3	2	0,1	

Note. \* Chi-square with Yates correction. AM: breastfeeding [note]

Source: research data.

**TABLE 3 – Association between sociodemographic / obstetric variables and breast engorgement, at a Public Hospital of the Goiás State Network, Goiânia, GO, Brazil, 2016.**

Variables	Breast engorgement				P Value
	Yes		No		
	n	%	n	%	
<b>Age</b>					
≤ 35	658	38,5	692	40,5	0,210*
> 35	161	9,4	198	11,6	
<b>Municipality</b>					
Goiânia	613	36,1	656	38,7	0,671*
Others	201	11,8	227	13,4	
<b>Schooling</b>					
≤8 years	28	1,7	24	1,5	0,430*
> 8 years	752	45,8	838	51	
<b>Occupation</b>					
Employed	678	42	752	46,5	0,958*
Unemployed	88	5,4	98	6,1	
<b>Number of births</b>					

1 <sup>st</sup> time	515	31,6	598	36,7	<u>0,038*</u>
2 <sup>nd(+)</sup> time	268	16,5	248	15,2	
<b>Type of birth</b>					
Cesarean section	666	39,6	730	43,4	0,593*
Vaginal delivery	142	8,4	144	8,6	
<b>AM support in childbirth</b>					
Yes	427	28,1	418	27,5	<u>0,021*</u>
No	300	19,7	375	24,7	
<b>Previous AM</b>					
Yes	185	46,6	163	41,1	0,507*
No	23	5,8	26	6,5	
<b>Pre-natal</b>					
Yes	787	47,7	857	51,9	0,105*
No	6	0,3	1	0,1	

Note. \* Chi-square with Yates correction. AM: breastfeeding [note]

Source: research data.

**TABLE 4 – Association between sociodemographic and obstetric variables and nipple trauma, in a Public Hospital of the Goiás State Network, Goiânia, GO, Brazil, 2016.**

Variables	Nipple trauma				P Value
	Yes		No		
	n	%	n	%	
<b>Age</b>					
≤35	441	25,8	903	52,8	0,228*
> 35	107	6,3	258	15,1	
<b>Municipality</b>					
Goiânia	423	24,9	840	49,5	0,067*
Others	124	7,3	310	18,3	
<b>Schooling</b>					
≤ 8 years	15	0,9	43	2,6	0,362*
> 8 years	515	31,3	1072	65,2	
<b>Occupation</b>					
Employed	462	28,5	966	59,7	0,639*
Unemployed	58	3,6	133	8,2	
<b>Number of births</b>					
1 <sup>st</sup> time	357	21,9	752	46,1	0,999*
2 <sup>nd(+)</sup> time	167	10,3	354	21,7	
<b>Type of birth</b>					
Cesarean section	457	27,1	935	55,6	0,173*
Vaginal delivery	83	4,9	208	12,4	
<b>AM support in childbirth</b>					
Yes	266	17,6	574	37,9	0,105*
No	241	15,9	433	28,6	
<b>Previous AM</b>					
Yes	102	25,7	246	62	0,372*
No	18	4,5	31	7,8	
<b>Pre-natal</b>					
Yes	529	32,2	1109	67,4	0,072*
No	5	0,3	2	0,1	

Note. \* Chi-square with Yates correction. AM: breastfeeding [note]

Source: research data.

difficulties in breastfeeding, since they do not have experience, which generates insecurity and the demand for the services offered in the HMB<sup>(6)</sup>.

The cesarean delivery method was associated with the search for breastfeeding assistance ( $p = <0.001$ ). The literature shows that, during the breastfeeding period,

there are difficulties experienced by women after the cesarean section<sup>(15)</sup>. In Canada, women undergoing this type of delivery had more difficulties with breastfeeding and were more likely to discontinue breastfeeding before 12 weeks postpartum compared to those who chose vaginal delivery<sup>(16)</sup>.

In this study, breastfeeding in the previous pregnancy was associated with the search for breastfeeding assistance ( $p = 0.004$ ). This result resembles another study<sup>(17)</sup>, in which the mothers reported having had difficulties in previous breastfeeding experiences, and the most mentioned reasons were breast engorgement, inverted nipple and insufficient milk production.

Primiparity was associated with the absence of breast engorgement ( $p = 0.038$ ). This finding does not corroborate that found in the literature, in which engorgement was one of the main difficulties presented by primiparous women during the exclusive breastfeeding period<sup>(18)</sup>. Most common problems related to lactation can be prevented by adequate emptying of the breasts<sup>(19)</sup>. However, this prevention often does not occur with primiparous women, since they do not have previous experience<sup>(6)</sup>.

It was verified, in this research, that, although they received support to breastfeeding in the maternity of the delivery, the nursing women had breast engorgement ( $p = 0.021$ ). It is important to emphasize that the orientation after the delivery is essential for the woman to initiate and maintain breastfeeding, besides helping her avoid or minimize problems that occur with the breast, such as engorgement<sup>(20)</sup>.

The study showed that most of the nurses who sought care in the HMB came from the Capital. The knowledge of the municipality of residence is fundamental to verify the importance of the existence of an HBL, with actions and activities aimed at breastfeeding. Thus, there was almost an association between the fact that the nursing mothers were residents of the Capital and the non-occurrence of nipple trauma. It is worth emphasizing the importance of the expansion of the HMB in order to expand this assistance<sup>(11)</sup>.

It was observed in this study that the prenatal accomplishment was almost associated with the non-occurrence of nipple trauma ( $p = 0.072$ ). The orientation of the fetus and the positioning of the infant received during prenatal care may be a protective factor against nipple trauma<sup>(21)</sup>. However, in another study, no association was found between the fact that women received guidance on gestational breastfeeding during the prenatal period or breast care and the prevalence of early problems with the breast in the first 18 to 48 months hours postpartum<sup>(22)</sup>.

It is observed that the intention of the first visit to the BLH is not that the woman becomes a donor, but that a service is sought to manage the main difficulties

in breastfeeding, such as the accomplishment of breast milking, besides orientation and help in techniques that help women maintain lactation. From this understanding, women naturally become voluntary donors<sup>(23)</sup>.

In this study, it was verified that, in relation to the number of care, most of the nursing mothers sought care only once (76.0%), and were motivated by the need for breastfeeding assistance (41.9%). The handle and position correction orientation was successfully performed in most cases; it is believed that the service was decisive and no return was required. The support given by the HMB in the early days of breastfeeding is essential for mothers to continue breastfeeding and become possible donors<sup>(23)</sup>.

Regarding the professionals who attended the nursing mothers, the nursing team was responsible for the majority of visits (95.0%). The nursing professional's role in relation to breastfeeding is through the promotion, encouragement, support and provision of necessary guidance so that there is no interference in breastfeeding or difficulties are minimized<sup>(1)</sup>.

A similar study, with secondary data obtained from a mandatory form by the mothers attended at an HBP at a maternity hospital in Belo Horizonte, under the title of Baby Friendly Hospital, emphasized the importance of counseling for the adequate management of breastfeeding by the health professionals<sup>(24)</sup>. It is important to emphasize that adequate training for professionals regarding this lactation period is necessary, in order to promote qualified care<sup>(25)</sup>.

## CONCLUSIONS

The main complaints that led the nursing mothers to seek care at HBL were related to the difficulty with breastfeeding technique and breast problems, such as breast engorgement and nipple trauma.

The need for breastfeeding technique was associated with the fact that the nursing mother came from the capital, had more than eight years of study, had an occupation, was a primiparous woman, had a cesarean section and had previous experience with breastfeeding. There was an association between breast engorgement and primiparity, in addition to the support to breastfeeding, received at the maternity hospital.

The study made it possible to understand the importance of HBs to mothers in the lactation process, a period in which women become anxious and require quality information. In addition, it was also verified the relevance of the psychoemotional support of the health professionals and the family, in order to generate confidence and safety for the postpartum breastfeeding. This demand for the BLH confirms the need for further studies that can verify the quality of care provided to women in prenatal and maternity care.

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