

## The nurse as a mediator in breast milk donation

*La enfermera como mediadora en la donación de leche materna*

*O enfermeiro como mediador na doação de leite materno*

**Joana Christovão Moreira<sup>1\*</sup>**

ORCID: 0009-0004-8092-9078

**Geandra Quirino da Silva<sup>1</sup>**

ORCID: 0000-0002-3442-4202

**Marcela Gomes Barboza**

**Tavares<sup>2</sup>**

ORCID: 0009-0006-4227-4589

**Isaías dos Santos Silva<sup>3</sup>**

ORCID: 0000-0001-5679-0628

**Renata Lopes Magalhães<sup>4</sup>**

ORCID: 0009-0009-0948-2070

**Giselle Barcellos Oliveira**

**Koepe<sup>1</sup>**

ORCID: 0000-0002-4821-1021

<sup>1</sup>Universidade Veiga de Almeida.  
Rio de Janeiro, Brazil.

<sup>2</sup>Universidade Estácio de Sá. Rio  
de Janeiro, Brazil.

<sup>3</sup>Universidade Iguçu. Rio de  
Janeiro, Brazil.

<sup>4</sup>Universidade Federal de Alfenas.  
Minas Gerais, Brazil.

### How to cite this article:

Moreira JC, Silva GQ, Tavares MGB,  
Silva IS, Magalhães RL, Koepe GBO.

The nurse as a mediator in breast  
milk donation. Glob Acad Nurs.  
2023;4(Sup.3):e401.

<https://dx.doi.org/10.5935/2675-5602.20200401>

### \*Corresponding author:

[joomoreira@gmail.com](mailto:joomoreira@gmail.com)

**Submission:** 08-08-2023

**Approval:** 10-02-2023

### Abstract

This study aimed to gather national scientific evidence about the activities performed by nurses in human milk banks (HMB); describe the activities performed by nurses in HMB; and analyze the performance of nurses in HMB, based on the activities performed. This is an integrative review with a qualitative approach. The search was conducted in LILACS, BDNF, and SciELO. After applying the eligibility criteria, 10 articles comprised the final sample and were analyzed using the thematic content analysis method. The analytical categories resulting from the analysis were Operationalization of HMB by nurses, The health education process in HMB, and the Nursing Process/ Systematization of Nursing Care. In a multidisciplinary team, nursing stands out in the health education of the population and the team itself, as a facilitator of the breastfeeding process and a mediator between donation and recipient babies. Factors such as the lack of preparation of health professionals and the lack of information about the process hinder the work of an HMB. Therefore, greater investment in health policies focused on breastfeeding and breast milk donation is necessary.

**Descriptors:** Human Milk Banks; Nurses; Nursing; Systematization of Nursing Care; Nursing Process.

### Resumén

El objetivo fue recolectar evidencia científica nacional sobre las actividades realizadas por enfermeras en los bancos de leche humana (BMH); describir las actividades realizadas por los enfermeros en el HMB; analizar el desempeño del enfermero en HMB, con base en las actividades realizadas. Se trata de una revisión integradora, con un enfoque cualitativo. La búsqueda se realizó en LILACS, BDNF y SciELO. Luego de aplicar los criterios de elegibilidad, 10 artículos constituyeron la muestra final y fueron analizados mediante el método de análisis de contenido temático. Las categorías analíticas que surgieron del análisis fueron: La operacionalización del LM por parte del enfermero; El proceso de educación en salud en el HMB; Proceso de Enfermería/ Sistematización de la Atención de Enfermería. En un equipo multidisciplinario, la enfermería se destaca en la educación en salud de la población y del propio equipo, como facilitadora del proceso de lactancia materna y mediadora entre los bebés donados y receptores. Factores como la falta de preparación de los profesionales de la salud y la falta de información sobre el proceso dificultan el trabajo de un HMB. Por tanto, es necesaria una mayor inversión en políticas de salud dirigidas a la lactancia materna y la donación de leche materna.

**Descriptor:** Bancos de Leche Humana; Enfermeras; Enfermería; Sistematización de la Atención de Enfermería; Proceso de Enfermería.

### Resumo

Objetivou-se levantar evidências científicas nacionais acerca das atividades desempenhadas pelo enfermeiro em banco de leite humano (BLH); descrever as atividades realizadas pelo enfermeiro em BLH; analisar a atuação do enfermeiro em BLH, com base nas atividades realizadas. Trata-se de uma revisão integrativa, com abordagem qualitativa. A busca foi realizada na LILACS, BDNF e SciELO. Após aplicados os critérios de elegibilidade 10 artigos compuseram a amostra final e foram analisados pelo método de análise temática de conteúdo. As categorias analíticas provenientes da análise foram: A operacionalização do LM pelo enfermeiro; O processo de educação em saúde no BLH; Processo de Enfermagem/ Sistematização da Assistência em Enfermagem. Em uma equipe multiprofissional, a enfermagem se destaca na educação em saúde da população e da própria equipe, como facilitador do processo de amamentação e mediador entre a doação e os bebês receptores. Fatores como o despreparo dos profissionais de saúde e a falta de informação sobre o processo dificultam o trabalho de um BLH. Torna-se necessário, portanto, um maior investimento em políticas de saúde voltadas para a amamentação e a doação de leite materno.

**Descritores:** Bancos de Leite Humano; Enfermeiros; Enfermagem; Sistematização da Assistência de Enfermagem; Processo de Enfermagem.



**Introduction**

Breast milk (BM) is the most complete food for babies and should be given exclusively until 6 months of age, according to the World Health Organization (WHO) and assured by the Ministry of Health, it can continue to be part of the child's diet until two years of age or more<sup>1</sup>.

Breastfeeding is a source of all the proteins a child needs, providing benefits such as protection against respiratory infections, allergies, and other diseases such as diabetes<sup>2</sup>. Breastfeeding improves the quality of life of infants, reducing infant mortality and preventing various diseases. It also reduces the risk of breast cancer in the mother and increases the bond between her and the baby<sup>1</sup>.

It is known, for example, that preterm newborns, who were born prematurely and breastfed with breast milk (BM), have a shorter hospital stay, a lower risk of developing infections, and improved gastrointestinal and cognitive maturation. Factors such as low weight and some pathologies can interfere with breastfeeding. Prematurity falls under these factors because, since the premature baby has difficulty latching on and sucking, due to physiological immaturity, the mother is not given the stimulus, and she begins to not produce enough milk<sup>3-5</sup>.

Many newborns do not have access to their own mother's milk, but they need to receive this food, which is rich in nutrients that are essential for them. Therefore, it is important for other women who breastfeed to donate breast milk. This is where human milk banks (HMB) come in, which provide relief for mothers. They strengthen public health policies focused on breastfeeding to promote, protect, and support breastfeeding, encouraging it and supporting women who are unable to breastfeed, as well as their babies<sup>6,7</sup>.

The HMB receives the BM donation and stores it properly. The donated milk undergoes quality control before reaching its destination, as do the donors, who undergo a screening performed by a trained professional, as required by the National Health Surveillance Agency. The professionals who work at an HMB must advise women on the importance of donating since health education is their responsibility. Among these professionals, nurses can be mentioned, who need to have a sensitive view of the act of donating human milk and encourage it<sup>7,8</sup>.

The role of the nurse in a milk bank, in addition to receiving, storing, and pasteurizing donated milk, also consists of assisting and supporting women who encounter difficulties in the breastfeeding process, promoting care, and preventing these complications<sup>8</sup>.

By providing the correct guidance to mothers, nurses ensure that infants receive a better supply of the milk they need. Nursing in a milk bank has become the essential mediator between the donation and the babies who will receive it, often being responsible for saving these little lives, in addition to helping many women with breastfeeding. In this context, it is essential to understand the role of nurses in this scenario, improving the care provided.

Given the above, the present study aimed to gather national scientific evidence about the activities performed by nurses in HMB; describe the activities performed by nurses in HMB; and analyze the performance of nurses in HMB, based on the activities performed. The relevance of this study for nursing is to understand its important role in ensuring that babies are fed in the most complete and ideal way for their development through donated breast milk when they do not have their own mother's milk. The contribution to society consists of two very important points: encouraging lactating women to donate part of their milk and contribute to saving lives; and increasing the hope of mothers who are unable to breastfeed their children. For science, this study aims to contribute to the training of future health professionals who wish to work in breastfeeding and its challenges, in addition to seeking more research on the subject to strengthen it and make it increasingly understood.

**Methodology**

This is an integrative review study of a descriptive and exploratory nature, with a qualitative approach. An integrative review study gathers data from previous research on the same subject to be addressed, bringing together all the studies related to it. It is a study that allows for a deeper and more comprehensive knowledge of the chosen topic<sup>9</sup>. A descriptive study describes the facts or phenomena in question, providing data to verify hypotheses. An exploratory study aims to develop hypotheses, familiarize the researcher with the environment, fact, or phenomenon to be studied, and clarify doubts about the topic<sup>10</sup>. In the qualitative approach, the researcher focuses on the qualitative characteristics of the phenomenon or fact studied, worrying about aspects that cannot be quantified<sup>11</sup>.

This integrative review was guided by the following research question: "How does a nurse perform in a human milk bank?", which was based on the PICo strategy (Chart 1), which is sensitive to encompass qualitative research focusing on human experiences and social phenomena, with P = population, patient or problem addressed in the study; I = phenomenon of interest; Co = context<sup>12</sup>.

**Chart 1.** Application of the PICo strategy. Cabo Frio, RJ, Brazil, 2023

| Acronym | Definition                              | Application           |
|---------|---|-----------------------|
| P       | Population, patient, or problem studied | Nurse                 |
| I       | Interest                                | Professional activity |
| Co      | Context                                 | Human milk bank       |

The inclusion criteria adopted for this integrative review were full-text articles, published in Portuguese, without a time frame, that focused on the research question. Theses, dissertations, and course completion papers were

excluded. The search was conducted in the Latin American and Caribbean Literature in Health Sciences (LILACS), Medical Literature Analysis and Retrieval System Online



Moreira JC, Silva GQ, Tavares MGB, Silva IS, Magalhães RL, Koeppel GBO excluded due to duplication, leaving 65. The reading of the titles excluded 53 studies, leaving 12 for reading the abstracts. The analysis of the abstracts excluded 1 article, leaving 11 for reading in full. Of these, 1 was excluded because it did not fit the proposed objectives, leaving 10 studies, which comprised the final sample of this review. This search strategy is demonstrated in Figure 1, which was adapted based on the search and selection flowchart under the PRISMA guidelines<sup>13</sup>.

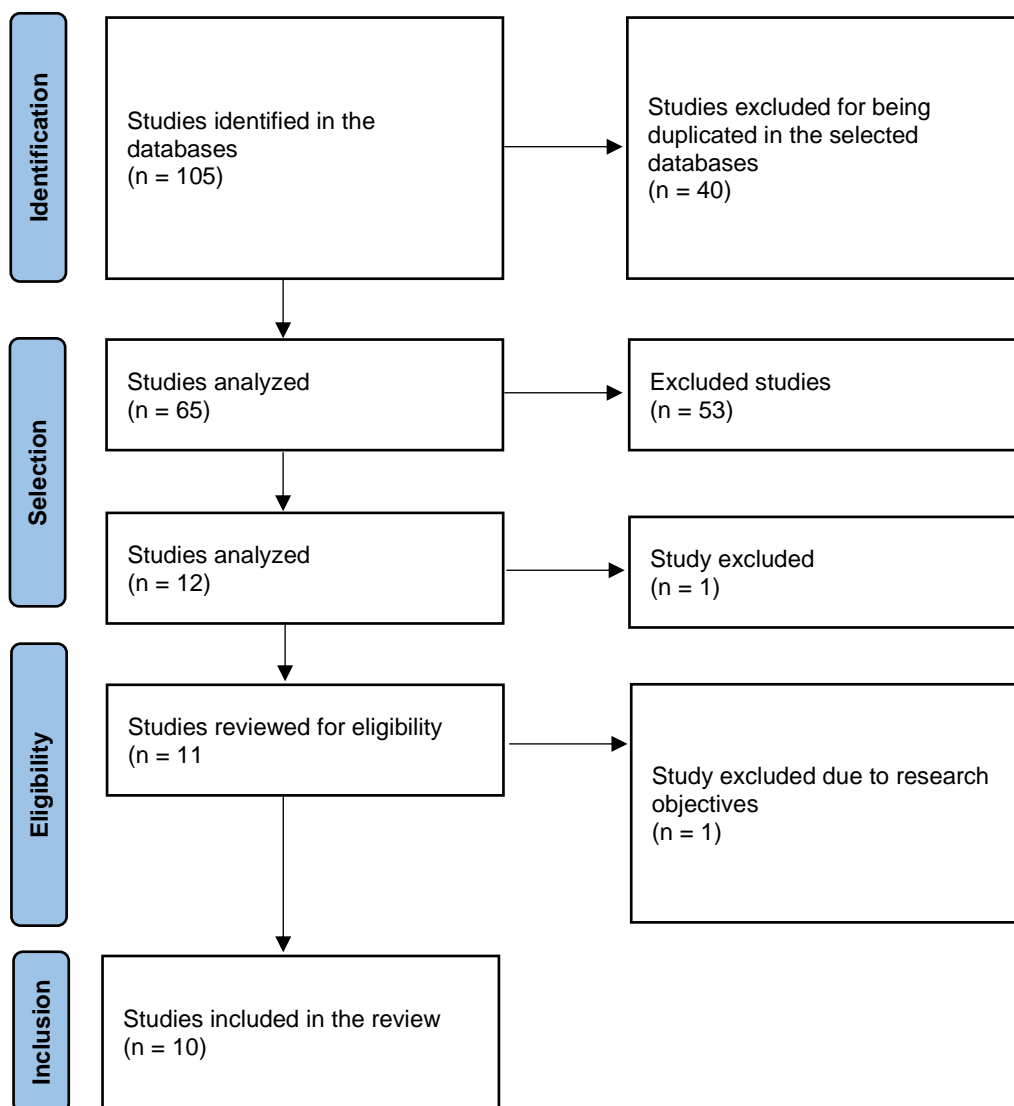
(MedLine), Nursing Database (BDENF) and Scientific Electronic Library Online (SciELO).

The descriptors used for the search were found in the Health Sciences Descriptors (DeCS) platform, such as Human milk banks, Nurses, Nursing and Nurses and nurses. These terms were combined using the Boolean operators “AND” and “OR” to broaden the search (Chart 2). The cross-referencing of the descriptors identified 105 primary studies in the databases chosen for this research. Of these, 40 were

Chart 2. Presentation of descriptors and their intersections. Cabo Frio, RJ, Brazil, 2023

| Databases                            | Search strategy  |
|--------------------------------------|--|
| LILACS<br>MedLine<br>BDENF<br>SciELO | “Human milk banks” AND “Nurses” OR “Nursing” OR “Nurses” |

Figure 1. Flowchart of search and selection of studies to compose the integrative review on the role of nurses in human milk banks. Cabo Frio, RJ, Brazil, 2023



Data collection took place between April and May 2023.

The 10 studies selected from the final sample were grouped in descending order in a table for better visualization of the results. This instrument favored the grouping of key information from each selected study,

building a database for the final stage of the research. The information taken from the selected articles that made up the table were: title, journal, year of publication, authors, objectives, results, and conclusion (Chart 3).

Given the categorization of the results achieved, after organizing the selected articles, a thorough reading was



carried out, beginning the analysis and discussion stage of the results. The data were analyzed using Bardin's Content Analysis method, a strategy that can be defined as a set of communication analysis techniques aimed at obtaining, through systematic and objective procedures for describing the content of messages, indicators that allow the inference of knowledge regarding the conditions of production and reception of these messages<sup>14</sup>.

Content analysis was carried out in the thematic modality, according to the steps pre-established by the adopted methodological framework, namely: pre-analysis, exploration of the material, and data processing<sup>14</sup>.

The pre-analysis included the organization of the material to be used, based on information extracted from the 10 selected articles. As previously mentioned, the organization was carried out by constructing an analytical framework, which included key points to be analyzed. Next,

the empirical material was reviewed, with an initial identification of relevant aspects that met the objectives of the study. In the material exploration stage, units of meaning pertinent to the research context were identified, which were coded and grouped thematically, giving rise to preliminary analytical categories. In the third and final stage, data processing, the established categories were interfered with and interpreted, based on a reflective analysis, guided by pertinent and significant theoretical references.

**Results and Discussion**

The results of the studies that make up this integrative review will be presented below. The search identified 10 articles that allowed us to outline the role of nurses in a human milk bank. Chart 3 summarizes the exploratory productions in this integrative review, in decreasing order of publication.

**Chart 3.** Distribution of articles included in the integrative review in decreasing order of publication, according to title, journal, year of publication, authors, type of study, results, and conclusion. Cabo Frio, RJ, Brazil, 2023

| Title  | Journal/Year                           | Authors                          | Objectives   | Main results   | Main conclusions  |
|--|--|----------------------------------|--|--|---|
| Rotinas e normas técnicas de um banco de leite humano e central de informações sobre aleitamento materno                     | Rev. Bras. Enf. 1985                   | SANTOS, E. K. A; ASSIS, M. A. A. | Present the technical standards and routines established in an HMB.  | The article presents the technical standards and routines established in each HMB as a reference for the others. They were prepared based on two years of experience.  | The technical standards and routines established in a HMB are intended to benefit recipient babies with milk that meets their needs.  |
| Banco de leite humano como uma estratégia de cuidado de enfermagem ao neonato  | Revista de enfermagem UFPE online 2012 | LESSA, Q. C. S. S. et al.        | Assess the impact of HMB on the care of newborns and their families and highlight its importance for the work of nurses. | Mothers' anxiety about breastfeeding reinforces the lack of guidance from professionals on the subject.  | HMBs are characterized as facilitators of care for the professionals who work there, promoting good results.  |
| Atuação do acadêmico de enfermagem no Banco de Leite Humano: Relato de experiência   | Cienc Cuid Saúde 2013                  | D'ARTIBALE, E. F. et al.         | Describe the process of insertion and participation of nursing students in the extension project at an HMB.              | The students acquired practical and theoretical knowledge about breastfeeding, in addition to having experienced multidisciplinary work.   | The project developed allows students to participate in the breastfeeding process, exchanging experiences with professionals, in addition to contributing to the services provided in milk banks. |
| Fatores que interferem na doação de leite humano: revisão integrativa  | Cogitare Enferm. 2016                  | RECHIA, F. P. N. S. et al.       | Analyze Brazilian scientific production on the factors that interfere in the donation of human milk.                     | The study showed that the number of articles on the subject has been growing, contributing to the objectives of milk banks, which find negative interference factors.  | It was identified which factors negatively interfere with BM donation, and that there is a need for further studies to increase the number of donations and encourage breastfeeding.              |
| A prática do enfermeiro no banco de leite: um relato de experiência  | Revista de enfermagem UFPE online 2016 | RODRIGUES, E. M. S. et al.       | Report the experience of the HMB nurse in supporting breastfeeding.  | The nurse, in a milk bank, offers support to the nursing mother, encourages breastfeeding, and corrects possible complications in this process.  | The nurse's action at the HMB allows the promotion of breastfeeding and contributes to the prevention of early weaning.   |
| Articulação entre sistematização de enfermagem e procedimentos operacionais: Perspectiva dos enfermeiros dos bancos de leite | Revista de enfermagem da UFSM 2017     | MARCHIORI, G. R. S. et al.       | Understand the articulation facets of the Systematization of Nursing Care with the regulations used by HMB nurses.       | Two categories were created according to the statements of the nurses interviewed: "The nurses' knowledge about SNC for its applicability" and "SNC and standard operating procedures in Human Milk Bank: an articulation of the nursing process". | It was found that there was a need to implement SNC in milk banks and to associate it with operational procedures.  |



|   |  |                            |  |  |   |
|---|--|----------------------------|--|--|---|
| Atuação do enfermeiro nos Bancos de Leite Humano  | Revista de enfermagem UFPE online 2017 | PEREIRA, J. A. C. et al.   | Identify nurses' practices in HMB.   | Nurses carry out management activities, as well as the care aspect focused on breastfeeding management and prevention of complications. However, there is a need to participate in training courses. | With a series of tasks in milk banks, nurses do not have time to put the Nursing Process into practice. Participation in continuing education on breastfeeding is also necessary.   |
| Saberes sobre Processo de Enfermagem no Banco de Leite Humano   | Texto Contexto Enferm 2018             | MARCHIORI, G. R. S. et al. | Analyze nurses' knowledge about the nursing process as an instrument of SNC in the HMB.                              | The Nursing Process organizes and supports the work of nurses within milk banks.   | The nurse's work must be based on a scientific methodology. Therefore, it is necessary to develop a working instrument within milk banks that allows the application of SNC.  |
| Diagnósticos de enfermagem de mulheres nutrízes atendidas no banco de leite humano                                  | Enferm. Foco 2019                      | CRESPO, N. C. T. et al.    | Understand the profile of Nursing Diagnoses in nursing women treated at the Human Milk Bank.                         | Twenty-seven nursing diagnoses were made among donor and non-donor women.  | With the diagnoses found, it was possible to observe the needs of women served at the HMB and, thus, increase the quality of care provided.   |
| Reflexão sobre a organização do trabalho de Enfermagem no banco de leite: cuidado compartilhado e multiprofissional | Escola Anna Nery 2022                  | MARCHIORI, G. R. S. et al. | Reflect on the organization of Nursing work at the HMB based on shared care actions with the multidisciplinary team. | It was evident that the nursing process is part of the care provided within the profession and that work in an HMB is organized in a multidisciplinary team.   | Each professional within a team at the milk bank has their importance and must be respected and valued. There must always be communication between the team and a willingness to respond to all cases that arise in the milk banks. |

The condensation of the selected articles - carried out in Chart 3 based on an accurate reading of the studies - allowed the topics addressed to be grouped and categorized systematically, enabling the qualitative analysis of this research. Thus, three thematic analytical categories emerged from this investigation, namely: The importance of the nurse within the multidisciplinary team in an HMB; The health education process in the HMB; Nursing Process (NP)/ Systematization of Nursing Care (SNC).

**The importance of nurses within the multidisciplinary team in an HMB**

This integrative review showed that in an HMB, the activities performed by the nurse do not refer only to those considered exclusive to this professional, but encompass activities carried out by a multidisciplinary team, of which the nurse is a part and plays a fundamental role.

Among the actions performed in an HMB, in which the nurse participates are donor registration and the entire donation process, milk collection, quality control, conservation, storage, and distribution. In addition, for good quality control of the BM, it is necessary to inactivate its microbiota, a process called pasteurization, an activity in which the nurse also participates. Pasteurized human milk does not contain microorganisms capable of harming the health of babies, ensuring its use<sup>15,16</sup>.

The above-mentioned activities are fundamental since human milk is the only effective means of controlling infectious epidemics in neonatal inpatient units, and with the increased implementation of HMB, the needs of hospitalized babies could be met, thanks to the adequate collection, processing, and storage of BM<sup>17</sup>.

As previously mentioned, nurses, like other professionals, participate in the donor registration process.

In order to donate, the donor must undergo a screening process and receive guidance and information on breastfeeding practices. The following information about the donor must be recorded: date of collection, name, address, number of children, age, amount of milk collected, age of the milk (from the time of delivery), and use of drugs or medications. The destination of the donated milk is also recorded<sup>17</sup>.

The screening process observed in this review corroborates the follow-up recommended by the Ministry of Health, which states that in the donation process, milk banks must screen donors, as they must be selected based on their lifestyle and health, considering that breastfeeding is contraindicated in the following cases: women infected with HIV, HTLV1 and 2; use of medications incompatible with breastfeeding<sup>18</sup>.

Still on the role of nurses in donation, studies show that the earlier the introduction of BM, the greater the chance of survival of the hospitalized newborn. In this sense, this integrative review showed some health actions that have been developed by nurses to encourage breastfeeding, contributing to the reduction of infant mortality. Such actions are guided by the philosophy of the HMB itself, which promotes the supply of milk, considers the needs of the recipient babies, according to their age and weight, and assists mothers in the lactation process, correcting possible errors and clarifying doubts<sup>19</sup>.

As already mentioned, donation begins with the screening and registration process. The donor can express milk at home, with guidance from professionals, or from the milk bank itself. In this context, the nurse provides guidance on hygiene, pre-milking massages, positioning and storage until the milk is taken to the HMB. It is important to follow all hygiene recommendations before the extraction process,



Moreira JC, Silva GQ, Tavares MGB, Silva IS, Magalhães RL, Koeppe GBO during such an intense period as breastfeeding, increasing the quality of life of the mother-baby binomial and strengthening their bond<sup>15</sup>.

Women who seek out the services of a milk bank expect answers to their questions and a way to control their anxiety about the breastfeeding process. Therefore, professional support is of great importance in preventing early weaning, since the many questions related to breastfeeding can contribute to these women giving up on breastfeeding and/or donating. This is because the act of breastfeeding and of donating goes beyond biological aspects, and emotional support is necessary for these women<sup>21</sup>.

The nurse's educational activity with postpartum women also involves raising awareness among these women about the importance of breastfeeding and milk donation. Many women feel greatly fulfilled by being milk donors since they recognize the importance of BM for the lives of other babies. However, many mothers with high milk production are unaware of this service, and it is necessary to disseminate more information about it, it is up to the nurse to provide opportunities for conversations, courses, or lectures on the subject for these mothers<sup>19</sup>.

### **Nursing Process (NP)/ Systematization of Nursing Care (SNC)**

The integrative review demonstrated that nurses in an HMB do not only work in the care area but also in management, ensuring, with their administrative role, the quality of the care provided. Based on the Nursing Process (NP), nurses organize their work with the following steps: data collection, nursing diagnoses, action planning, execution of these actions, and their evaluation. However, nurses do not work alone, as there is a multidisciplinary team working in a milk bank. The team includes the participation of nutritionists, doctors, social workers, psychologists, and speech therapists<sup>15,22</sup>.

The purpose of the nursing process is to systematize care, based on scientific knowledge and know-how. This knowledge has been present in nursing since the time of Florence Nightingale and other nurses who contributed to science. Systematizing is understood as the act of organizing or structuring something. The process, on the other hand, means a set of continuous actions. Therefore, systematizing the nursing process is a way to better meet the health needs of the population, aiming to detect problems and practice decision-making to solve them<sup>23</sup>.

It was noted in this review that in an HMB the systematization of nursing care occurs, guided by the five stages of the NP: nursing history, nursing diagnoses, nursing planning, implementation of planned actions, and nursing evaluation. However, many professionals do not put the systematization of care into practice, as the automation in the execution of actions in the HMB makes the process difficult, making it necessary to deepen its concept and its importance<sup>23</sup>.

One of the studies in this review identified some nursing diagnoses within a given milk bank, to contribute to the assistance of professionals in prescribing care. Twenty-

such as washing hands and using disposable caps and masks<sup>6</sup>.

Nurses can participate in the milk storage process, which is an extremely important activity since the correct freezing of BM ensures its preservation and increases its shelf life. In this context, nurses must monitor the temperature of the freezer and not allow pasteurized milk to be stored together with milk that has not yet undergone the process<sup>16</sup>.

According to the review, expressed milk should be stored in a sterilized container at a temperature of 2°C if used within 24 hours, or -18°C for up to 6 months. Milk should be thawed for use in a water bath at 37°C or under running water. The milk, ready for use, will be distributed according to the doctor's prescription and the recipient's needs and will be sent in a Styrofoam container with a label containing the date, signature, age of the milk, and name of the donor<sup>17</sup>.

### **The health education process at the HMB**

The integrative review showed that there is a deficiency in the education of health professionals about the services provided by milk banks. Most nurses who work at HMBs report never having participated in courses or training focused on breastfeeding, stating that they only discussed the subject in their undergraduate courses. This data demonstrates the need for effective continuing education. Nurses, as leaders of their teams, must train them to offer quality care to the target audience, with due knowledge of the service offered<sup>8</sup>.

The review showed that the health education process carried out by nurses in HMBs is not only aimed at the health team, but also at the clients served. The nurse is responsible for guiding women who seek the services of a milk bank, providing information related to the HMB itself and all practices aimed at breastfeeding<sup>8</sup>.

The most common questions women who visit milk banks have are related to the latch, frequency, and duration of breastfeeding, whether it is meeting the baby's needs, among others. In this sense, the process of educating clients involves support for postpartum women in person and/or by telephone; breastfeeding consultations to correct the baby's latch and position; home visits to promote breastfeeding; encouragement to donate milk; and intervention strategies aimed at the needs of the lactating woman<sup>15,20,21</sup>.

It is worth mentioning that many of these doubts and uncertainties demonstrate the low quality of the guidance given during prenatal care, reinforcing the importance of continuing education for professionals responsible for the health of pregnant women, postpartum women, and babies<sup>15</sup>.

Given this scenario of fear, doubts, and lack of information, milk banks are of great help to postpartum women, also providing guidance on their lifestyle and changes in their bodies while breastfeeding, as many are going through this process for the first time. The professionals at an HMB become part of the support network for these women, as, in addition to ensuring successful breastfeeding, they provide essential comfort



Moreira JC, Silva GQ, Tavares MGB, Silva IS, Magalhães RL, Koeppel GBO between health professionals, since it uses a common language between specialties. Despite its importance for care, SNC is still little used, both due to lack of time and knowledge and due to the gap between theory and practice, which should not exist, since the care provided must be based on scientific knowledge<sup>22,25</sup>.

One of the articles in this review presented the main diagnoses present in the milk bank. The data from this study are shown in the chart below.

seven NDs were found among donor and non-donor women, some real and others potential, all within the domains proposed by the NANDA-I taxonomy (Chart 4). The importance of detecting them lies in knowing how to act so the problem is resolved<sup>24</sup>.

The use of SNC in HMBs is directly related to the quality of care, since nurses, using their clinical judgment and holistic view, can understand the data collected, make diagnoses, and intervene to achieve positive results. In addition, systematizing care improves communication

**Chart 4.** Nursing diagnoses extracted from the article entitled: “Diagnósticos de enfermagem de mulheres nutrizes atendidas no banco de leite humano”. Cabo Frio, RJ, Brazil, 2023

| Diagnoses   | Non-donors (%) | Donors (%) |
|---|----------------|------------|
| Ineffective health maintenance                    | 9.5            | -          |
| Ineffective breastfeeding                         | 42.8           | -          |
| Interrupted breastfeeding                         | 33.3           | 33.3       |
| Improved willingness to breastfeed                | 23.8           | 66.6       |
| Imbalanced nutrition: less than body requirements | 19             | -          |
| Overweight  | 19             | 44.4       |
| Risk of unstable blood glucose                    | 9.5            | -          |
| Risk of deficient fluid volume                    | 4.7            | -          |
| Dysfunctional gastrointestinal motility           | 4.2            | -          |
| Impaired sleep pattern                            | 76.1           | 77.7       |
| Decreased cardiac output                          | 14.2           | -          |
| Readiness for improved knowledge                  | 100            | -          |
| Deficient knowledge                               | 66.6           | -          |
| Risk of impaired motherhood                       | 33.3           | 33.3       |
| Risk of impaired bonding                          | 33.3           | 33.3       |
| Ineffective sexuality pattern                     | 33.3           | -          |
| Sexual dysfunction                                | 19             | -          |
| Ineffective activity planning                     | -              | 22.2       |
| Anxiety   | 52.3           | 55.5       |
| Stress overload                                   | 14.2           | -          |
| Risk of feeling helpless                          | -              | 11.1       |
| Risk of infection                                 | 80.9           | -          |
| Risk of bleeding                                  | 4.7            | -          |
| Impaired tissue integrity                         | 80.9           | -          |
| Risk of sudden infant death syndrome              | 23.8           | -          |
| Acute pain  | 38             | 11.1       |
| Chronic pain                                      | -              | 11.1       |

Source: Adapted from Crespo et al<sup>24</sup>.

**Final Considerations**

This integrative review showed that the activities performed by nurses in a milk bank are diverse and essential within the same. In a multidisciplinary team, nursing stands out in the health education of the population served and of

the team itself, as a facilitator of the breastfeeding process and a mediator between the donation and the recipient babies. With the help of the SNC, the work of the HMB nurse brings an improvement in the quality of care, since it



Moreira JC, Silva GQ, Tavares MGB, Silva IS, Magalhães RL, Koeppe GBO complications or to help babies who do not have access to their own mother's milk, indicating the services offered by HMB, and to contribute to the training of professionals in the area and to future work on the subject.

This study allowed us to understand that the role of a nurse in a milk bank is fundamental for the development of preterm babies admitted to a NICU, as well as full-term babies whose mothers are unable to cope with the breastfeeding process alone and therefore also seek help from the service.

It can be said that nursing work is about giving oneself to achieve the well-being of others. Furthermore, nurses who work in a milk bank are directly linked to the act of donating, encouraging it and ensuring that it saves lives.

organizes the work provided and facilitates, with its stages, the decision-making within each problem raised.

Unfortunately, some factors interfere with milk donation, such as the lack of training of health professionals on the subject and the lack of information about the process. There are also structural factors that hinder the work of an HMB: first, the absence of them in some cities, and then, the lack of materials and equipment essential for the proper functioning of some milk banks. Thus, it is possible to question the lack of investment in health policies aimed at breastfeeding and breast milk donation.

The relevance of this study is to present the important role of nursing in the processes of breastfeeding and breast milk donation, to encourage them and show what to do when there is a desire to breastfeed without

## References

1. Ministério da Saúde (BR). *Cadernos de Atenção Básica: Saúde da Criança, Aleitamento Materno e Alimentação Complementar*. Brasília (DF): Ministério da Saúde; 2015.
2. Abreu RS, Silva ACR, Silva WGR, Silva MLL, Freitas JG, Ramos MM, Melo JS, Caldas MBM, Vargas LR, Machado PRF. Aleitamento materno: dificuldades encontradas pelas mulheres e os auxílios e estratégias do enfermeiro diante ao incentivo. *Glob Acad Nurs*. 2022;3(Sup.1):e243. <https://dx.doi.org/10.5935/2675-5602.20200243>
3. Aires LCP, Galhardo VG, Pegoraro LGO, Schultz LF, Rossetto EG, Zani AV, et al. O processo de amamentação do bebê pré-termo: perspectiva dos registros maternos no "diário do bebê". *Semin. Cienc. Biol. Saude*. 2020;41(2):217-28. <https://doi.org/10.5433/1679-0367.2020v41n2p217>
4. Ministério da Saúde (BR). Portaria n.º 2.193. Define a estrutura e a atuação dos Bancos de Leite Humano. Brasília (DF): Ministério da Saúde; 2006.
5. Monteiro JRS, Dutra TA, Tenório MCS, Silva DAV, Mello CS, Oliveira ACM. Fatores associados à interrupção precoce do aleitamento materno exclusivo em prematuros. *Arq Catarin Med [Internet]*. 2020 [acesso em 22 mai 2022];49(1):50-65. Disponível em: <https://revista.acm.org.br/arquivos/article/view/643>
6. Fundação Oswaldo Cruz (Fiocruz). Rede global de bancos de leite humano [Internet]. Fiocruz; 2005 [acesso em 29 mar 2022]. Disponível em: <https://rbhl.fiocruz.br>
7. Fonseca RMS, Milagres LC, Franceschini SCC, Henriques BD. O papel do banco de leite humano na promoção da saúde materno infantil: uma revisão sistemática. *Ciênc. Saúde Colet*. 2021;26(1). <https://doi.org/10.1590/1413-81232020261.24362018>
8. Pereira JAC, Alves VH, Marchiori GRS, Rodrigues DP, Gabriel AD, Santos MV. *Rev. enferm. UFPE on line*. 2017;11(7): 2691-2696. DOI: 10.5205/reuol.10939-97553-1-RV.1107201706
9. Crossetti MGO. Revisão integrativa de pesquisa na enfermagem: o rigor científico que lhe é exigido [editorial]. *Rev Gaúcha Enferm*. [Internet]. 2012 [acesso em 29 mar 2022] jun;33(2):8-9. Disponível em: <https://www.scielo.br/j/rgenf/a/9TrSVHTDtDGhcP5pLvGnt5n/?format=pdf&lang=pt>
10. Marconi MA, Lakatos EM. *Fundamentos da Metodologia Científica*. 9. ed. São Paulo: Grupo Gen; 2021.
11. Lozada G, Nunes KS. *Metodologia Científica*. Porto Alegre: SAGAH Educação S.A.; 2019.
12. Araújo WCO. Recuperação da informação em saúde: construção, modelos e estratégias. *Converg Ciênc Info [Internet]*. 2020 [acesso em 22 mai 2022];3(2):100-134. Disponível em: <http://www.repositorio.ufc.br/handle/riufc/52993>
13. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, Shamseer L, Tetzlaff JM, Akl EA, Brennan SE, Chou R, Glanville J, Grimshaw JM, Hróbjartsson A, Lalu MM, Li T, Loder EW, Mayo-Wilson E, McDonald S, McGuinness LA, Stewart LA, Thomas J, Tricco AC, Welch VA, Whiting P, Moher D. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021 Mar 29;372:n71. doi: 10.1136/bmj.n71
14. Bardin L. *Análise de conteúdo*. São Paulo: Edições 70; 2011.
15. Lessa QCSS, Santos FAS, Horta IMD, Medeiros RCR. Banco de leite humano como uma estratégia de cuidado de enfermagem ao neonato. *Rev. enferm. UFPE on line*. 2012;6(1):188-191. DOI: 10.5205/reuol.2052-14823-1-LE.0601201226
16. Instituto Fernandes Figueira (IFF). NT 16.21 - Ordenha de Leite Humano: Procedimentos Higiênicos Sanitários. Rio de Janeiro; 2021.
17. Santos EKA, Assis MAA. Rotinas e normas técnicas de um banco de leite humano e central de informações sobre aleitamento materno. *Rev. Bras. Enferm*. 1985;38(2). <https://doi.org/10.1590/S0034-71671985000200004>
18. Ministério da Saúde (BR). Nota Técnica n.º 33/2018. Técnica sobre Toxoplasmose e Amamentação. Brasília (DF): Ministério da Saúde; 2019.
19. Rechia FPNS, Cherubim DO, Paula CC, Padoin SMM. Fatores que interferem na doação de leite humano: revisão integrativa. *Cogitare Enferm [Internet]*. 2016 [acesso em 22 mai 2022];21(3):01-11. Disponível em: <https://revistas.ufpr.br/cogitare/article/view/44723>
20. Rodrigues SEM, Rodrigues DP, Andrade M, Braga ALS, Alves VH, Santos MV. A prática do enfermeiro no banco de leite: um relato de experiência. *J Nurs UFPE on line*. [Internet]. 2016 [acesso em 22 mai 2022]10(8):3161-6. Disponível em: <https://periodicos.ufpe.br/revistas/index.php/revistaenfermagem/article/view/11390/13147>





21. D'artibale EF, Machado AA, Dinardi JL, Genovez CB, Ichisato SMT, Serafim D. Atuação do acadêmico de enfermagem no banco de leite humano: relato de experiência. *Ciênc. cuid. saúde*. 2013;12(3):582-588. <https://doi.org/10.4025/ciencuidsaude.v12i3.19230>
22. Marchiori GRS, Alves VH, Rodrigues DP, Vieira BDG, Pereira AV, Calandrini TSS. Reflexão sobre a organização do trabalho de Enfermagem no banco de leite: cuidado compartilhado e multiprofissional. *Esc. Anna. Nery*. 2022;26. <https://doi.org/10.1590/2177-9465-EAN-2021-0174>
23. Marchiori GRS, Alves VH, Rodrigues DP, Santos MV, Branco MBLR, Gabriel AD. Saberes sobre Processo de Enfermagem no Banco de Leite Humano. *Texto contexto - enferm*. 2018;27(2). <https://doi.org/10.1590/0104-070720180000390016>
24. Crespo NCT, Santana RF, Alves VH, Pereira AV, Marchiori GRS, Rodrigues DP. Diagnósticos de enfermagem de mulheres nutrizas atendidas no banco de leite humano. *Enferm em Foco*. 2019;10(1). <https://doi.org/10.21675/2357-707X.2019.v10.n1.1396>
25. Marchiori GRS, Alves VH, Rodrigues DP, Gabriel AD, Santos MV, Branco MBLR. Articulação entre sistematização de enfermagem e procedimentos operacionais: perspectiva dos enfermeiros dos bancos de leite. *Rev Enferm UFSM*. 2017;7(2):179-92. <https://doi.org/10.5902/2179769225701>

