




REVIEW


Scientific evidence about donation and precautions in the collection of human milk at home

Evidências científicas acerca da doação e cuidados na coleta de leite humano em domicílio
Evidencia científica sobre donación y cuidados en la recolección de leche humana en el hogar


Layanna lasmin Chaves da Silva¹

 <https://orcid.org/0000-0002-0594-2836>


Aderlaine da Silva Sabino¹

 <https://orcid.org/0000-0002-9881-3282>

Lucas Lorrán Costa de Andrade¹

 <https://orcid.org/0000-0002-7924-0538>


Wagner Ferreira Monteiro²

 <https://orcid.org/0000-0002-3303-3031>


Elizabeth Teixeira³

 <https://orcid.org/0000-0002-5401-8105>

Bianca Jardim Vilhena²

 <https://orcid.org/0000-0002-6304-2596>

Aline Libório de Oliveira⁴

 <https://orcid.org/0000-0002-1790-356X>

¹Centro Universitário Luterano de Manaus (CEULM/ULBRA). Manaus, Amazonas, Brasil; ²Universidade do Estado do Amazonas (UEA). Manaus, Amazonas, Brasil; ³Universidade Federal do Pará (UFPA). Belém, Pará, Brasil; ⁴Faculdade Estácio do Amazonas. Manaus, Amazonas, Brasil.

ABSTRACT

Objective: To synthesize evidence in the scientific literature about donation and precautions in the collection of human milk at home. **Methods:** Integrative review whose research question was: what precautions should be taken by human milk donors during home collection? Through descriptors, searches were performed in MedLine, LILACS and SciELO libraries. The period of selected studies was from 2017 to 2020. **Results:** 11 articles were included. The categories that emerged were: information on milk donation begins in prenatal care and extends to the home; limits to be overcome regarding the collection of human milk; myths and truths about human milk donation. The synthesis of the findings allowed us to identify a set of aspects that need to be considered in the care action during the guidelines for the collection of human milk. **Conclusion:** Information on human milk donation needs to be a transversal strategy, from prenatal care to home. Precautions during the collection involves both the environment and conditions of the donor as well as the milking itself and the packaging of the collected milk.

Descriptors: Milk bank. Breast feeding. Milk sharing. Human milk.

RESUMO

Objetivo: Sintetizar evidências na literatura científica acerca da doação e cuidados na coleta de leite humano em domicílio. **Métodos:** Revisão integrativa que teve como questão de pesquisa: quais cuidados devem ser realizados por doadoras de leite humano durante a coleta domiciliar? Através de descritores, foram realizadas buscas nas bibliotecas MedLine, LILACS e SciELO. O período dos estudos selecionados foi de 2017 a 2020. **Resultados:** Foram incluídos 11 artigos. As categorias que emergiram foram: a informação sobre a doação de leite começa no pré-natal e se estende ao domicílio; limites a superar quanto à coleta de leite humano; mitos e verdades sobre doação de leite humano. A síntese dos achados permitiu identificar um conjunto de aspectos que precisam ser considerados no agir cuidativo durante as orientações da coleta de leite humano. **Conclusão:** A informação sobre a doação de leite humano precisa ser uma estratégia transversal, do pré-natal ao domicílio. Os cuidados na coleta envolvem tanto o ambiente e condições da doadora quanto a ordenha em si e o acondicionamento do leite coletado.

Descritores: Banco de leite. Aleitamento materno. Compartilhamento de leite. Leite humano.

RESUMÉN

Objetivo: Sintetizar evidencias en la literatura científica sobre la donación y los cuidados en la recolección de leche humana en el domicilio. **Métodos:** Revisión integradora cuya pregunta de investigación fue: ¿qué cuidados deben realizar las donantes de leche humana durante la extracción domiciliar? A través de descriptores, se realizaron búsquedas en las bibliotecas MedLine, LILACS y SciELO. El período de estudios seleccionados fue de 2017 a 2020. **Resultados:** Se incluyeron 11 artículos. Las categorías que surgieron fueron: la información sobre la donación de leche comienza en el prenatal y se extiende al hogar; límites a superar en cuanto a la recolección de leche humana; mitos y verdades sobre la donación de leche humana. La síntesis de los hallazgos permitió identificar un conjunto de aspectos que necesitan ser considerados en la acción asistencial durante las orientaciones para la recolección de leche humana. **Conclusión:** La información sobre la donación de leche humana debe ser una estrategia transversal, desde el prenatal hasta el domicilio. El cuidado en la recolección involucra tanto el entorno y las condiciones de la donante como el propio ordeño y el embotellamiento de la leche recolectada.

Descriptores: Banco de leche. Lactancia materna. Compartir leche materna. Leche Humana.

INTRODUCTION

Breast milk is considered the appropriate food for children, both from a nutritional and immunological point of view, as well as psychologically, as it contains proteins, amino acids, oligosaccharides, enzymes, antibodies, vitamins and minerals that together nourish and guarantee immunity. In addition, breast milk also favors the mother-child bond, offers the nutrients that the child needs to start a healthy life, improves digestion and minimizes colic, reduces the risk of allergic diseases and prevents contagious diseases such as diarrhea, being its single and exclusive consumption during the first six months of life essential. In this context, it is important that health professionals encourage and guide mothers regarding the benefits of breastfeeding, providing the necessary information for this practice to be strengthened.⁽¹⁻²⁾

The consumption of breast milk is important for the feeding of children at different stages of life and the donation of human milk (HM) is a fundamental alternative when for some reason it is not possible for the baby to receive the mother's own milk. In support of these statements, studies carried out on the benefits of breastfeeding and/or HM intake up to the first six months of life have highlighted that the donation of breast milk reduces mortality rates in the main Brazilian Neonatal Intensive Care Units (NICU).⁽³⁾

The Human Milk Bank Network (HMBN) is considered the largest and most complex in the world by the World Health Organization (WHO). It presents its growth model based on decentralization to states and municipalities, and is currently formed by 222 human milk banks (HMB) in operation and 212 more human milk collection stations (HMCS). HMBs are specialized services, mandatorily linked to a maternal and child care hospital, in charge of actions aimed at promoting, protecting and supporting breastfeeding and executing the tasks of collecting and classifying lactic acid production of the nursing mother and carrying out collection activities, processing and monitoring the quality of milk produced in the first days after childbirth (colostrum), transition milk and mature milk.⁽⁴⁻⁶⁾

Despite the HMB constantly working with guidelines for the process of donation, storage and delivery of expressed milk, the HMCSs still have an insufficient amount of adequate HM for use. The number of samples of contaminated milk is high, with the main cause being hygienic care not performed by the donor. This is a reflection of failures in the transfer of information/guidance, low access to educational materials or lack of attention to information. These facts indicate that the monitoring and provision of guidelines by qualified professionals, from the beginning of the first collection of milk at home to the following phases of the external donation process to the HMB, are important to reduce the disposal of HM.⁽⁷⁾

Based on the analysis of the theme, the objective of this study was to synthesize evidence in the literature about donation and precautions in the collection of HM at home.

METHODS

Integrative literature review carried out from June to October 2021. For the development of this study, six steps were taken: establishment of the research question; sampling or literature search; categorization of studies; evaluation of studies included in the review; interpretation of results; and synthesis of knowledge or presentation of the review.⁽⁸⁾

1st Step: Use of the Population, Intervention and Context/Results (PICO) strategy to develop the research question "what precautions should be taken by human milk donors during home collection?", and choice of descriptors in the search for scientific evidence on the subject (Chart 1).⁽⁹⁾

Chart 1. PICO strategy used in the study. Manaus, Amazonas, Brazil.

ACRONYM	DESCRIPTORS
P - Population: human milk donors	Bancos de leite, milk banks, aleitamento materno, breast feeding
I - Intervention/Exposure: precautions in the collection of breast milk	Compartilhamento de leite, milk sharing
Co - Outcome/Context:	Leite humano, human milk home

Source: Prepared by the authors (2022).

2nd Step: The research was carried out through the MedLine, Latin American and Caribbean Literature on Health Sciences (LILACS) databases and the Scientific Electronic Library Online (SciELO).

Combining descriptors with Boolean operators OR and AND, the search strategy for articles in English ((milk banks) AND (human milk)) AND (Donation) OR (Breast milk) was elaborated. Inclusion criteria were: primary articles in Portuguese, English and Spanish, published between 2016 and 2020, available in full and answering the review question. The time frame was due to the creation of the Senate Bill No. 171, of 2016, which obliges hospitals and other health care facilities for pregnant women to maintain HMB. During this period, the theme was in evidence and generated the interest of researchers.

Exclusion criteria were: documents retrieved repeatedly in different databases, articles without a detailed methodology (editorials, opinion articles, letters to the editor, reflective studies). In the third stage, 471 articles were excluded because they did not respond to the objective. Although they addressed the theme, they did not bring the precautions for home collection. The selection flow sought to respect the steps of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA) (Figure 1).⁽¹⁰⁾

3rd and 4th Steps: The process took place through the reading of the articles included in order to synthesize the key information and categorize them in an instrument developed by the researchers, to characterize the studies containing information regarding the year of publication, title, research location, database and level of evidence (LE).

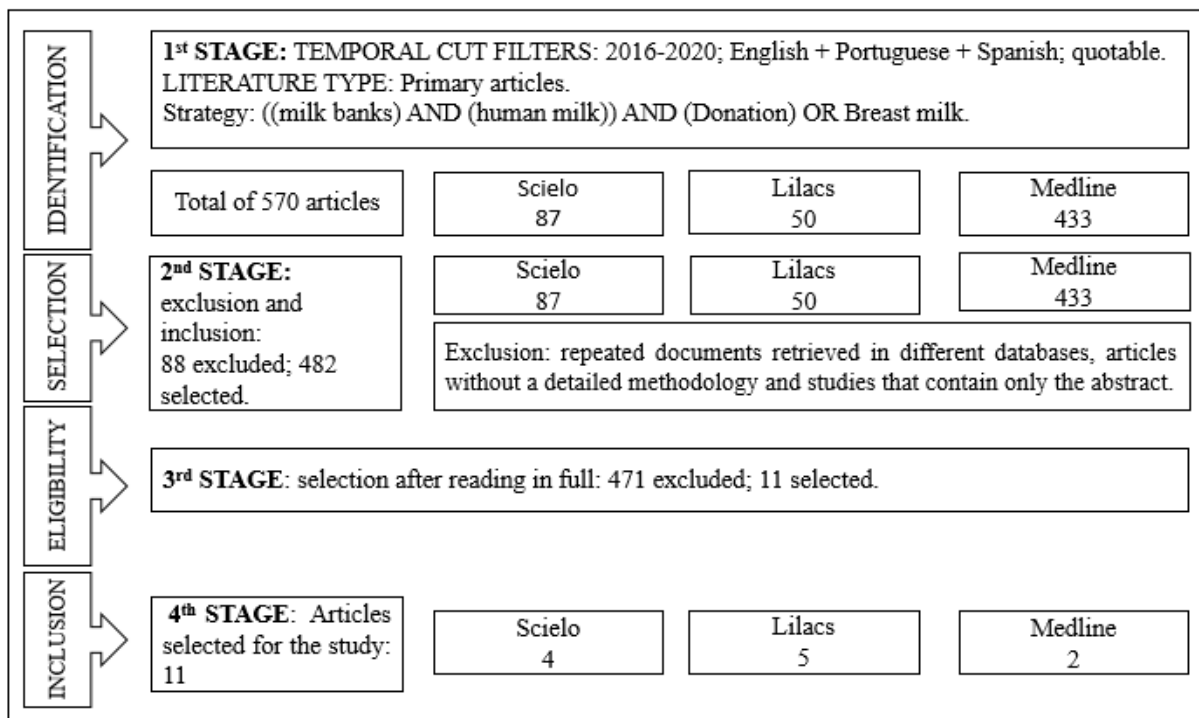
Afterwards, content analysis was performed and a diagram was created with precautions taken during the collection of HM and identification of categories to be discussed.

The LE is categorized into seven levels: 1- evidence comes from a systematic review, meta-analysis or clinical guidelines from systematic reviews of randomized and controlled clinical trials; 2- evidence from at least one randomized controlled clinical trial; 3- evidence derived from well-designed clinical trials, without randomization; 4- evidence

Scientific evidence about donation and precautions.. from well-designed cohort and case-control studies; 5- evidence presented from a systematic review, from descriptive and qualitative studies; 6- evidence from a single descriptive or qualitative study; 7- evidence derived from the opinion of authorities and/or expert committee opinion.⁽¹¹⁾

5th and 6th steps: organization of results, discussion of findings from the literature and presentation of the review/synthesis of knowledge.

Figure 1. Flowchart of the study selection process, adapted from PRISMA. Manaus, Amazonas, Brazil.



Source: Prepared by the authors (2022).

RESULTS

Eleven articles were analyzed, later characterized according to year, title, journal, place of research, database and LE (Chart 2).

Chart 2. Characteristics of the articles included in the review. Manaus, Amazonas, Brazil.

Year	Study title	Periodical	Research location	Database	LE
2020	Desejo de doar leite: relação com características maternas ⁽¹²⁾	Av. Enferm	Brazil	SciELO	4
2020	Puérperas e sua compreensão sobre a doação de leite humano ⁽¹³⁾	Rev. Bras. Saúde M. Infant.	Brazil	SciELO	6
2019	Conhecimento e adesão à doação de leite humano de parturientes de um hospital público ⁽¹⁴⁾	Interações	Brazil	SciELO	6
2019	A descriptive Study of the attitudes, perceptions, and experiences of human milk donation ⁽¹⁵⁾	NANN	United States	MedLine	4
2018	Human milk collection and utilization in a milk bank from a municipality of Paraná State ⁽¹⁶⁾	RPCFO	Brazil	LILACS	4
2018	Perfil calórico e higienicossanitário do leite pasteurizado pelo banco de leite humano do estado do Acre ⁽¹⁷⁾	Hig. aliment	Brazil	LILACS	4
2018	Recommendations for the creation and operation of maternal milk banks in Spain ⁽¹⁸⁾	An Pediatr (Barc)	Spain	MedLine	7

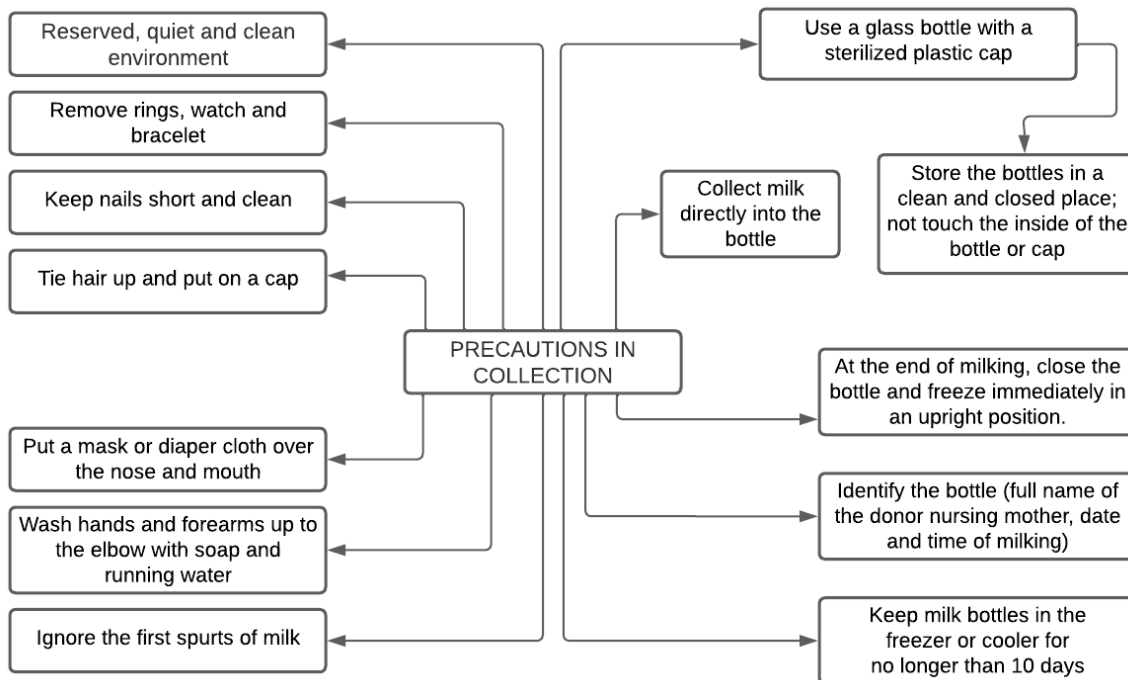
2018	Quality of human milk expressed in a human milk bank and at home ⁽¹⁹⁾	Jornal de Pediatria Metrics	Brazil	SciELO	4
2017	Rede de doação de leite humano: integração de unidades básicas de saúde, atenção secundária e banco de leite humano ⁽²⁰⁾	Rev. Med Minas Gerais	Brazil	LILACS	4
2017	Motivos de doação de leite humano de acordo com diferentes rendimentos per capital ⁽²¹⁾	Rev. Bras. Saúde Mater. Infant.	Brazil	LILACS	4
2017	Prevalence and factors associated with breast milk donation in banks that receive human milk in primary health care units ⁽²²⁾	J Pediatr (Rio)	Brazil	LILACS	4

Source: Prepared by the authors (2022).

Of the 11 studies, nine were carried out in Brazil.^(12-14,16-17,19-22) The articles were predominantly published in 2018,⁽¹⁶⁻¹⁹⁾ with most publications in Portuguese. The database that contributed the most was LILACS. It was found that seven studies expressed LE 4.^(12,15-17,19-22)

The synthesis of the findings made it possible to identify a set of aspects that need to be considered in the care action during the guidelines for the collection of HM (Figure 2).

Figure 2. Diagram of precautions in the collection of human milk. Manaus, Amazonas, Brazil.



Source: Prepared by the authors (2022).

The categories that emerged from the findings were: information on milk donation begins in prenatal care and extends to the home; limits to be overcome regarding the collection of human milk; myths and truths about human milk donation.

DISCUSSION

Information on milk donation begins in prenatal care and extends to the home

Understanding the importance, process and destination of milk is as important as the act of donating itself. This is because, when you don't know why you are doing something, you tend to do it in a mechanized and inappropriate way. In this context, information is essential, as lactating women will be able to understand the process and then perform this act with more precision and care.⁽¹²⁻¹⁴⁾

The analysis of the studies shows that all lactating women complain of lack of information, especially during prenatal care. Some report that the donation approach only occurs in the puerperium, more

specifically hours after delivery. At this time when great changes are taking place, many women are unable to absorb the information and become really interested in donation. Even if they are interested, the time is not right and the guidelines end up being forgotten. Some authors point out the factors that influence lactating women in donating milk. Educational and social support actions, covering the entire pregnancy-puerperal period, are crucial for the interest and motivation for donating HM.^(12-14,16-17,20-22,24)

In this context, the importance of nurses in caring for pregnant, postpartum and nursing mothers is highlighted. It is the health professional who is responsible for the first contact in the units and who is in charge of the care, being them a promoter of

breastfeeding, who uses their skills to teach and propagate the care that these mothers need to have and to know about the donation of HM. (12-14,16,18,21,25)

In addition to preparing them for the act of donation, it is necessary to explain what the HMB is, how it works, its principles and the destination of the milk they are donating. Many donors report that they do not know the destination of their milk, not having a dimension of the social importance that this act represents, sometimes causing them to give up donating because they think that all the work to collect is in vain. (12-13,15)

Disseminating information about the donation of HM and the functioning of the HMBs should start during prenatal care, as this is the time when these women are more open and willing to new information and knowledge. Thus, when they reach the puerperium, they will know enough about the subject and will be great candidates for donation. These findings corroborate another study that identified the improvement of this approach in primary health care by disclosing the benefits of this practice in a satisfactory and effective way. (12-22,26)

The visit to the home of donors and potential donors by HMB professionals and those responsible for transporting the milk is a way to humanize the service and provide more information to lactating women. It would be the ideal place and time to align the process, clarify doubts and promote knowledge, strengthening the professional/nursing mother bond and also including the family in this process, which is not simple and requires support. (14,22)

Limits to be overcome regarding the collection of human milk

The HMBN recommends that the collection of HM must be carried out properly with regard to personal hygiene care, milking technique, milk collection, cleaning and sterilization of bottles, storage, labeling and transport. (27) It is observed that the main flaw is in the act of milking. This is because women report not having obtained the necessary guidance during the prenatal and postpartum period, which becomes a difficulty for the practice of donation and, consequently, for ensuring the quality of the milk.

On the other hand, a study carried out with 19 women registered in a HMB identified that the donors did not have difficulties with the act of donation. (28) However, it is still necessary to expand divulgation and campaigns in order to spread knowledge about the importance of donating the HM, in addition to constant assessments of deficiency indicators in the number of nursing mothers registered in the HMB. (12-14,17,22)

It is noteworthy that it is essential that milking is conducted with hygienic-sanitary rigor, so that, in this way, the maintenance of the immunobiological and nutritional characteristics of the product can be guaranteed, since they are considered indicators of milk quality control. (29)

Another barrier encountered was the lack of supplies needed for donation. The HMBN says that the bottle must be of glass with a plastic lid, like those for instant coffee or mayonnaise. Before use, they must be washed and sterilized. If the HMB does not make these bottles available, a difficulty is

Scientific evidence about donation and precautions.. already created and a possible cause for withdrawal. As well as the cap and mask that the donor needs to use during collection in order not to contaminate the milk; if it is not offered, the quality of the milk is compromised, which may result in its disposal. (14-17,27)

The transport of milk collected at home to the HMB or HMCS is the main difficulty and inaccessibility for donors. The HMBN describes that this collection is carried out in different ways. It may be that the donor needs to take the bottle personally or, if the linked HMB has a collection routine, the vehicle goes to the home and collects it. Other HMBs have the partnership of the military fire department, which take this route and carry out the task. However, studies show that the strategies for collecting this milk do not work effectively, as the lactating women claim that they cannot count on this support to come get it at home. Some even had the support of firefighters, but not always. Most of them had to take the milk to the HMBs and HMCSs, which is often tiring and unfeasible. (12-15,21,27)

It is observed that home care is lacking due to the absence of guidance, team support and strategies to strengthen the donor's bond with the HMB where the breastfeeding mother is inserted. As evidence of these statements, there is the disposal of milk and the low stock of HMBs, as the difficulties are always surpassing the facilities. (12-22)

Myths and truths about human milk donation

The myths about the donation of HM are related to the lack of knowledge, mainly about the process that involves the donation, which leads women to believe that it is a complex and unlikely practice in their reality. When talking about breastfeeding, many myths automatically arise that are sometimes taken for granted by a social context. Milk donation causes great doubts that, if not clarified or well explained, generate myths that become barriers that interfere with donation. (14-15,17)

Of the main myths observed, we find the following: "fear of drying up the milk". The Ministry of Health is emphatic in saying that inadequate emptying of the breast, whether due to mechanical or chemical inhibition, can lead to a decrease in milk production. The continuous removal of lactation-suppressing peptides contained in milk guarantees the total replacement of the milk removed, that is, the more the breast is emptied, the more milk it will produce. (14,28)

In sequence, the phrase "child gets weaker" is also a myth, because donated milk is only extracted after the child is completely satisfied. Therefore, HMBs are judicious in the selection of donors, as not all mothers have milk production that exceeds the needs of their baby. This is one of the inclusion or exclusion criteria during the selection of donors. (14,29)

Another issue is the amount of milk that should be removed. Many mothers do not know and stick to numbers, when, in fact, there is no amount of milk or standardization of the number of times to milk. (14,17,22,29)

It must be made clear that the milk received will undergo a pasteurization process, being transformed from raw milked HM (RMHM) into pasteurized milked HM (PMHM). This processing, however, does not

replace the care that needs to be done during home collection. It is important that the milk is protected from contamination prior to arrival at the HMBs, in order to preserve its components until distribution.⁽²⁰⁾

It is essential that professionals pass on this information and break this cycle of myths that surround donation, in order to promote this act and increase the number of families interested in contributing to the HMB. It is clear that these myths influence the engagement and the inadequacy of the collection practice and directly affect the quality of the milk and the assiduity of the donors.⁽¹²⁻²²⁾

As a limitation of the study, it is highlighted that only free and unrestricted articles were consulted and there was no insertion of gray literature. It is believed that this review contributes to primary health care by bringing evidence that indicates the need for permanent education of professionals involved in the care of HM donors. Another contribution is to indicate the importance of producing educational materials for donors about collecting milk at home.

CONCLUSION

Good practices in HM donation and collection at home are related to the caring action of health professionals in the orientation and training of lactating women. The effectiveness of the process is associated with security and clarification to donors.

Based on what was analyzed, it is evident that information on HM donation needs to be a transversal strategy, from prenatal care to home. Care in the collection involves both the environment and conditions of the donor as well as the milking itself and the packaging of the collected milk.

REFERENCES

1. Sousa FLL, Alves RSS, Leite AC, Silva MPB, Veras CA, Santos RCA, et al. Benefits of breastfeeding for women and newborns. *Res Soc Dev*. [Internet]. 2021; 10(2): e12710211208. doi: <https://doi.org/10.33448/rsd-v10i2.11208>
2. Brasil. Saúde Brasil: Leite Materno: o primeiro contato do bebê com a comida de verdade [Internet]. 2020 [Cited 25 out 2021]. Available from: <https://saudebrasil.saude.gov.br/eu-queero-me-alimentar-melhor/leite-materno-o-primeiro-contato-do-bebe-com-a-comida-de-verdade>
3. ONU. Organização das nações unidas. WFP mostra benefícios do aleitamento no Dia Mundial de Doação de Leite Humano. [Internet]. 2022 [Cited 26 maio 2022]. Available from: <https://brasil.un.org/pt-br/182774-wfp-mostra-beneficios-do-aleitamento-no-dia-mundial-de-doacao-de-leite-humano>
4. Fonseca RMS, Milagres LC, Franceschini SCC, Henriques BD. O papel do banco de leite humano na promoção da saúde materno infantil: uma revisão sistemática. *Cien Saude Colet*. [Internet]. 2021; 26(1):309-18. doi: <https://doi.org/10.1590/1413-81232020261.24362018>

Scientific evidence about donation and precautions..

5. Ministério da Saúde (BR). Secretaria de atenção primária à saúde. Experiência brasileira dos Bancos de Leite Humano é reconhecida mundialmente. 2020 [Cited 27 out 2021]. Available from: <https://aps.saude.gov.br/noticia/8757>
6. FIOCRUZ. Fundação Oswaldo Cruz. Rede Brasileira de Bancos de Leite Humano (RBLH). Bancos de leite humano - localização e relatórios. [Internet]. 2020 [Cited 20 set 2021]. Available from: https://producao.redeblh.icict.fiocruz.br/porta_l_blh/blh_brasil.php
7. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Portal de Boas Práticas em Saúde da Mulher, da Criança e do Adolescente. Principais Questões sobre o Papel dos BLH na Promoção e Proteção do Aleitamento Materno [Internet]. 2021 [Cited 22 set 2021]. Available from: <https://portaldeboaspraticas.iff.fiocruz.br/atencao-crianca/principais-questoes-sobre-o-papel-dos-blh-na-promocao-e-protacao-do-aleitamento-materno/>
8. Sousa LMM, Vieira CMAM, Severino SSP, Antunes AV. A metodologia de revisão integrativa da literatura em Enfermagem [Internet]. 2017; 21(2):17-26. Available from: <http://www.sinaisvitalis.pt/images/stories/Rie/RIE21.pdf#page=17>
9. Polit DF, Beck CT. Fundamentos da pesquisa em enfermagem: avaliação de evidências para a prática de enfermagem. 9th ed. Porto Alegre: ArtMed; 2018.
10. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA ScR): checklist and explanation. *Ann Intern Med* [Internet]. 2018;169(7):467-73. Doi: <https://doi.org/10.7326/M18-0850>
11. Santos e Silva RK, De Moura MS, Carvalho ML, Braz ZR, Moura NS, Mendes AN, et al. Desejo de doar leite: relação com características maternas. *Av Enferm*. [Internet]. 2020; 38(2):216-25. doi: <https://doi.org/10.15446/av.enferm.v38n2.82838>
12. Melnyk BM, Fineout-Overholt E. Making the case for evidence-based practice. Evidence-based practice in nursing & healthcare: a guide to best practice. Philadelphia: Lippincott Williams & Wilkins; 2005. p. 3-24.
13. Buges NM, Klinger KSA, Pereira RJ. Puérperas e sua compreensão sobre a doação de leite humano. *Rev Bras Saúde Mater Infant*. [Internet]. 2020; 20(1):213-25. doi: <http://dx.doi.org/10.1590/1806-93042020000100012>
14. Muller KTC, Souza AIP de, Cardoso JMF, Palhares DB. Conhecimento e adesão à doação de leite humano de parturientes de um hospital público. *Inter*. [Internet]. 2019;20(1):315-26. doi: <https://doi.org/10.20435/inter.v0i0.1588>

15. Wambach K, Bateson T, Matheny P, Easter-Brown K. A descriptive study of the attitudes, perceptions, and experiences of human milk donation. *Adv Neonatal Care*. [Internet]. 2019; 19:441-51. doi: <https://doi.org/10.1097/anc.0000000000000659>

16. Soares LG, Dolinski D, Wagner LPB, Santos LSF, Soares LG, Mazza VA. Human Milk Collection and Utilization in a Milk Bank From a Municipality of Paraná State. *R Pesq. Cuid Fundam online*. [Internet]. 2018; 10(3):656-62. doi: <https://doi.org/10.9789/2175-5361.2018.v10i3.656-662>

17. Vieira DO, Ritter CG, Imada KS, Martins FA. Perfil calórico e higienicossanitário do leite pasteurizado pelo banco de leite humano do estado do Acre. *Hig Alimentar*. [Internet] 2018; 32(278):85-91. Available from: <https://docs.bvsalud.org/biblioref/2018/08/910584/280-281-maio-jun-2018-85-91.pdf>

18. Calvo J, García Lara NR, Gormaz M, Peña M, Martínez Lorenzo MJ, Ortiz Murillo P, et al. Recomendaciones para la creación y el funcionamiento de los bancos de leche materna en España. *An Pediatr*. [Internet]. 2018; 89(1):1-76. doi: <https://doi.org/10.1016/j.anpedi.2018.01.010>

19. Borges MS, Oliveira AMM, Hattori WT, Abdallah VOS. Quality of human milk expressed in a human milk bank and at home. *J Pediatr*. [Internet]. 2018;94(4):399-403. doi: <https://doi.org/10.1016/j.jpdp.2017.09.014>

20. Megda MLM, Braga LA, Parizzi MR, Bouzada MCF. Rede de doação de leite humano: integração de unidades básicas de saúde, atenção secundária e banco de leite humano. *Rev Assoc Med Minas Gerais* [Internet]. 2017; 27:1-6. Available from: <http://www.rmmg.org/artigo/detalhes/2334>

21. Santos JAB, Serva VMSBD, Caminha MFC. Motivos de doação de leite humano de acordo com diferentes rendimentos per capita. *Rev Bras Saúde Mater Infant*. [Internet]. 2017; 17(2):307-15. doi: <https://doi.org/10.1590/1806-93042017000200006>

22. Meneses TM, Oliveira MIC, Boccolini CS. Prevalence and factors associated with breast milk donation in banks that receive human milk in primary

Scientific evidence about donation and precautions.. health care units. *J Pediatr*. [Internet]. 2017;93(4):382-8. doi: <https://doi.org/10.1016/j.jpdp.2016.09.004>

23. Buges NM, Pereira RJ. Fatores que influenciam o processo de doação de leite humano: uma revisão sistemática da literatura. *Rev Cont Saúde* [Internet]. 2020; 20(38):122-30. Doi: <https://doi.org/10.21527/2176-7114.2020.38.122-130>

24. Vassimon HS, dos Santos CM, Cossi JM de O, Maniglia FP. Características da gravidez e lactação de mulheres atendidas em um banco de leite humano. *R Assoc Bras Nutr*. [Internet]. 2020; 11(1):35-47. doi: <https://doi.org/10.47320/rasbran.2020.1153>

25. Souza GB de, Cardoso DC de O, Correia CV, Bongestad MM dos S, Silva PCP de O da. The importance of human milk donation in the contribution of development to premature newborns. *RSD* [Internet]. 2021;10(7):e15210716095. doi: <https://doi.org/10.33448/rsd-v10i7.16095>

26. FIOCRUZ. Fundação Oswaldo Cruz. Rede Brasileira de Bancos de Leite Humano (RBLH). Como coletar o leite humano para doação. [Internet] 2019 [Cited 18 out 2021]. Available from: <https://RBLH.fiocruz.br/como-coletar-o-leite-humano-para-doacao>

27. Santos ARS, Bispo AAC, Alves ALA, Oliveira VE, Braga AV, Bastos IGGS, et al. The importance of breastfeeding donation: donator's perception from Vitória da Conquista. *Brazilian Journal of Health Review* [Internet]. 2021; 4(5), 19561-71. doi: <https://doi.org/10.34119/bjhrv4n5-089>

28. ANVISA. Agência Nacional de Vigilância Sanitária. Banco de leite humano: funcionamento, prevenção e controle de riscos. 1 ed. [Internet] Brasília (DF): ANVISA; 2008. [Cited 30 out 2021]. Available from: https://www.anvisa.gov.br/servicos/audes/manuais/manual_banco_leite.pdf

29. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Atenção à saúde do recém-nascido: guia para os profissionais de saúde. 2. ed. Atual [Internet]. Brasília (DF). 2014 [Cited 30 out 2021]. Available from: https://bvsms.saude.gov.br/bvs/publicacoes/atencao_saude_recem_nascido_v1.pdf

Financing source: No

Conflicts of interest: No

Date of submission: 2022/29/04

Accepted: 2022/26/09

Publication: 2022/14/10

Corresponding author:

Aderlaine da Silva Sabino

E-mail: aderlainesabino@yahoo.com.br

How to cite this article:

Silva LIC, Sabino AS, Andrade LLC, Monteiro WF, Teixeira E, Vilhena BJ, Oliveira AL. Scientific evidence about donation and precautions in the collection of human milk at home. *Rev Enferm UFPI* [internet]. 2022 [Cited: ano mês abreviado dia]; 11: e2629. DOI: 10.26694/reufpi.v11i1.2629

