Breast milk donation: Experience report of a university extension **Project**

Doação de leite materno: Relato de experiência de um projeto de extensão universitária

Donación de leche materna: Relato de experiencia de un proyecto de extensión universitária

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RESUMO

Objetivo: Descrever a vivência de acadêmicos de enfermagem no projeto de extensão intitulado Doação de leite materno: Um ato que salva vidas, realizado no município de Parnaíba, Piauí. Métodos: Trata-se de um estudo descritivo de natureza qualitativa do tipo relato de experiência, que aborda a vivência de acadêmicos de enfermagem por meio da atuação no projeto de extensão chamado Doação de leite materno: Um ato que salva vidas, que teve suas atividades realizadas no município de Parnaíba, localizado no estado do Piauí. Resultados: Nota-se que as ações educativas em Unidades Básicas de Saúde podem alcançar resultados expressivos se feitas com planejamento e empenho dos responsáveis, como foi o caso ao longo desses 12 meses relatados, em que se pode contribuir para a ampliação de serviços, como o do posto de coleta, doando frascos de vidros e ajudando a aumentar o número de doadoras de leite humano. Conclusões: O projeto de extensão Doação de leite materno: Um ato que salva vidas demonstrou a relevância das ações educativas na promoção da saúde materno-infantil, contribuindo para o aumento da conscientização sobre a doação de leite humano e incentivando a adesão de novas doadoras.

Descritores: Educação em Saúde; Enfermagem; Leite Humano.

ABSTRACT

Objective: To describe the experience of nursing students in the extension project entitled Breast milk donation: An act that saves lives, carried out in the city of Parnaíba, Piauí. Methods: This is a descriptive, qualitative study of the experience report type, which addresses the experience of nursing students through their work in the extension project called Breast milk donation: An act that saves lives, which had its activities carried out in the city of Parnaíba, located in the state of Piauí. Results: It is noted that educational actions in Basic Health Units can achieve significant results if carried out with planning and commitment from those responsible, as was the case throughout these 12 months reported, in which it is possible to contribute to the expansion of services, such as the collection point, donating glass bottles and helping to increase the number of human milk donors. Conclusions: The extension project Breast milk donation: An act that saves lives demonstrated the relevance of educational actions in promoting maternal and child health, contributing to increasing awareness about human milk donation and encouraging new donors to join.

Descriptors: Health Education; Nursing; Milk, Human.

RESUMEN

Objetivo: Describir la experiencia de estudiantes de enfermería en el proyecto de extensión titulado Donación de leche materna: Un acto que salva vidas, realizado en la ciudad de Parnaíba, Piauí. Métodos: Se trata de un estudio descriptivo de carácter cualitativo, tipo relato de experiencia, que aborda la vivencia de estudiantes de enfermería a través de su trabajo en el proyecto de extensión denominado Donación de leche materna: Un acto que salva vidas, que tuvo sus actividades realizadas en el municipio de Parnaíba, ubicado en el estado de Piauí. Resultados: Se observa que las acciones educativas en las Unidades Básicas de Salud pueden alcanzar resultados significativos si se realizan con planificación y compromiso de los responsables, como fue el caso a lo largo de estos 12 meses reportados, en los que es posible contribuir a la ampliación de servicios, como el punto de colecta, donación de botellas de vidrio y ayudar a aumentar el número de donantes de leche humana. Conclusiones: El proyecto de extensión Donación de leche materna: Un acto que salva vidas demostró la relevancia de las acciones educativas en la promoción de la salud materno-infantil, contribuyendo a aumentar la conciencia sobre la donación de leche humana e incentivando la adhesión de nuevos donantes Descriptores: Educación en Salud; Enfermería; Leche Humana.

Introduction

Breast milk donation is a fundamental act for reducing neonatal morbidity and mortality, especially for premature or low birth weight newborns admitted to Neonatal Intensive Care Units (NICU). According to the Pan American Health Organization (PAHO), human milk is the best source of nutrition for infants, providing essential immunological and nutritional benefits for healthy growth and development. In Brazil, Human Milk Banks (HMB) play a crucial role in collecting, processing, and distributing this food, ensuring that infants in vulnerable situations receive adequate nutritional support.

The promotion of breast milk donation involves health education strategies and public awareness. Studies indicate that educational actions in Primary Health Care Units (PHCU) are effective in encouraging donation, demystifying beliefs, and clarifying doubts about the process.³ University extension projects are valuable tools in this context, as they bring students closer to the reality of public health services while promoting a positive impact on the community.⁴

In this context, the present study aims to describe the experience of nursing students in the extension project entitled *Breast milk donation: An act that saves lives*, carried out in the municipality of Parnaíba, Piauí. The main objective of the project was to encourage breast milk donation by local lactating women through educational activities and visits to PHCUs, with the collaboration of nurses and a nutritionist. The initiative highlights the importance of health education as a strategy to increase donations and to value the role of nursing professionals in promoting maternal and child health.

Methods

This is a descriptive qualitative study of the experience report type, which addresses the experience of nursing students through their involvement in the extension project titled Breast milk donation: An act that saves lives, whose activities were carried out in the municipality of Parnaíba, located in the state of Piauí. The activities were conducted by the students between March 2024 and February 2025, totaling 12 months.

The actions were carried out by 12 nursing students who were in their 8th semester of undergraduate studies. Ten of them study at the State University of Piauí (UESPI), one at the Maurício de Nassau University Center (UNINASSAU), and one at the Paulista University (UNIP). Among the students, one was a scholarship recipient chosen through a pre-established selection process by UESPI. The project also involved 10 collaborators, including 9 nurses and 1 nutritionist, as well as the project coordinator, who is a nurse and a faculty member at UESPI.

The project was developed in seven stages: The first stage consisted of meetings to determine the activity schedule and its respective executors, as well as identifying the locations for project implementation. The second stage involved contacting the collaborators to define the training topics. The third stage consisted of the training sessions aimed at preparing the students for the visits to the PHCUs.

The fourth stage was characterized by the creation of the project's Instagram account to promote content. The fifth stage involved a visit to the human milk collection station at the Dirceu Arcoverde State Hospital (HEDA). In the sixth stage, actions were carried out in the PHCUs, where the students gave lectures with the help of and shared flyers. Finally, the seventh stage included scientific production, focusing on publication in event proceedings or scientific journals.

Results

In the first month, a meeting was held with the students to explain the objectives, the actions that would be carried out each month, the presentation of the PHCUs participating in the project, as well as the division into groups for visits to the PHCUs in the following months. This meeting also served as an opportunity to address participants' questions.

The second month was dedicated to contacting the project collaborators, which occurred virtually through the WhatsApp app. Moreover, the collaborators defined which topics would be addressed in the training sessions for the students, as well as who would teach the sessions. A list was made with the main topics related to breast milk donation.

In the third and fourth months, training sessions were conducted for the students to prepare them for the actions at the PHCUs, where various topics were addressed by the collaborators. Some of the highlights included: the nutritional benefits of breast milk, lactation management, the role of breast milk donation in public health, among others. A total of five lessons were held, two in person and the other three virtually via Google Meet. The virtual format was adopted because the students were on vacation, and in-person meetings became unfeasible in the third month, as well as to avoid delaying the extension project.

Additionally, the students were invited by a collaborator from the hospital where the milk collection station is located to participate in a training session on breast milk donation on May 20, 2024, in commemoration of May 19, the National and World Breast Milk Donation Day. During the session, the importance of donating breast milk was discussed, explaining how the milk is used in the hospital (for babies in the NICU), which provided a valuable learning experience for the students.

In the fifth month, the creation of the extension project's Instagram account was articulated. The purpose of creating this account was to spread information about breast milk donation and publicize the activities carried out by the participants in the extension project, allowing followers to access information related to this topic.

Regarding the Instagram account (@proj.doacaodeleitematerno), it became a means of communication both for the general public and for the academic community. Several posts were made, addressing the topics covered in the lessons by the collaborators, with each student responsible for one post. These posts included topics such as: breast-related complications, correct lactation management, how to express breast milk, and others.

The use of this social media platform allowed access to a larger group of pregnant women and postpartum women, who, through the project's Instagram

profile, could learn about breast milk donation and how to become a donor. Some women even contacted the project to inquire about the donation process. The milk collection station's phone number was provided, along with information about the process and the necessary questions, which are part of the service protocol. This shows that the platform served as an additional communication channel to encourage women to donate their milk.

In the sixth month, a visit was made to the milk collection station at HEDA by the nursing students to better understand how the service operates, the structure of the location, and the entire dynamics of the team responsible for this important service.

During the visit, the students were welcomed by one of the project collaborators who works at HEDA. The structure was found to be quite small, with only two pediatric rooms designated for the service. Nevertheless, the necessary materials for proper milk handling, whether for storage or preparation for sending to NICU babies, were available. With the commitment of the responsible team, an important service is provided to society. Due to the limited space, the students were divided into three groups to make the best use of the visit and avoid overcrowding the professionals' workspace.

During the visit, several questions were asked, including how the breast milk donation process works. It was explained that there are two ways: first, donations from mothers whose babies are in the NICU, and second, from mothers who have an excess of milk and wish to donate. When asked about the visit, the students reported that it was very beneficial, as the collaborator was very attentive and eager to explain the entire process at the collection station. It is worth mentioning that this visit occurred with the authorization of the hospital administration, following all safety protocols, such as wearing masks, caps, and gowns, to prevent contamination and ensure the protection of the students.

From the seventh to the eleventh month, the actions of the extension project were focused on the community, specifically at the PHCUs, which always took place in the morning. The students arrived before the scheduled time to prepare the location and make final adjustments before starting the presentations. During the action, flyers with information on how to become a breast milk donor and the importance of the subject were distributed.

The organization of the actions relied heavily on the participation of the students, collaborators, and the project coordinator, who planned the execution of the activities. The scholarship student was responsible for gathering information about the PHCUs where the actions took place, such as their hours of operation, geographical location, days with the most pregnant and postpartum women, and for assigning groups to each PHCU, informing them in advance about the upcoming lectures. It is important to highlight that the educational actions were planned with the collaborating nurses at least one week in advance.

The target audience for the lectures consisted of pregnant women and postpartum women, as they are the groups that can become breast milk donors. The educational actions were scheduled on prenatal and childcare days to increase the number of potential milk donors. Therefore, the visit days were limited to one or two days a week, but this was not a barrier to carrying out the activities.

A total of seven actions took place with the target audience, distributed across four PHCUs, with all students participating in the lectures. The material

used for these actions was flyers, which the HEDA milk collection station provided for the extension project. This material consisted of paper banners with information about breast milk donation and how to become a donor. Topics covered in the material included: "Where does donated milk go?" "What are the criteria to become a breast milk donor?" and "What should I do if I meet all the criteria to donate milk?"

Based on these topics, the explanation provided by the students was crucial in helping them during the lecture. They used simple, easy-to-understand language to ensure that the audience understood the entire process of becoming a breast milk donor. At the end of each action, the importance of disseminating the shared information was emphasized, and it was highlighted that such actions are carried out in Parnaíba, as most people were unaware of the services provided by the milk collection station, such as residential milk collection.

Additionally, it was announced that glass jars, essential for milk collection and storage, were being collected. If participants had any, they could leave them at the PHCU, and the nurse would later give them to the project members. A total of 44 glass jars suitable for milk storage were collected and donated to the milk collection station, demonstrating that the lectures were effective in supporting the functioning of this important service.

It is also important to note that the phone number for the milk collection station was shared during these actions. Those interested in finding out if they could become donors were given contact information for a professional team that would inquire about their breastfeeding situation and difficulties. If their responses met the milk donation protocol, a home visit would be arranged to provide guidance on milk expression, hygiene, and storage.

Finally, the twelfth month was dedicated to scientific production with the aim of publishing. The students collaborated to write abstracts for submission to event proceedings. In total, three simple abstracts were produced, focusing on themes related to breast milk donation, and were presented in oral sessions, with certificates of presentation and publication. Furthermore, a brochure on breast milk donation was created for both the academic community and the general population. The language was simple and objective, making it easily understandable. Lastly, the efforts of the project members led to the production of this scientific article, reflecting their commitment to scientific output.

In this context, it is evident that educational actions in UBS (Basic Health Units) can achieve significant results if conducted with planning and dedication from the responsible parties, as was the case over the 12 months reported. These actions contributed to the expansion of services, such as the human milk collection center, by donating glass jars and helping to increase the number of human milk donors. Regarding the participating students, this period of learning and carrying out actions contributed to the formation of these future nurses.

Discussion

The activities carried out in the extension project "Breast Milk Donation: An Act That Saves Lives" highlight the importance of the role of nursing students in health promotion. The participation of the students, supported by the coordinator and collaborators, allowed the actions to take place in a planned and

organized manner, contributing to the dissemination of knowledge on the subject to the population and thus encouraging donations to the human milk collection center in Parnaíba.

Health education enhances nursing care by associating educational activities with patient assistance. Its goal is to provide guidance, clarify doubts, prevent diseases, or promote improvements in the patient's health condition, contributing to self-care and quality of life.

In this regard, it is evident that the Ministry of Health views health education as one of the main points that contribute to the educational process, helping in the construction of knowledge about an issue of great importance to society. Therefore, extension projects can directly impact breast milk donation, increasing the number of donors and raising awareness in the population about the importance of this altruistic act. Thus, it is clear that the educational actions carried out in the UBS (Basic Health Units) in Parnaíba significantly contributed to increasing donations at the human milk collection center, as they were structured based on the needs and specifics of the target audience.

Furthermore, the interaction between health professionals and students plays a crucial role in the quality of the knowledge shared during social actions. This exchange of knowledge allows students to develop interpersonal skills and understand the work in primary health care, where direct contact with the reality of public service contributes to the training of more prepared and humanized professionals. In this context, there was effective communication with each health professional responsible for the UBS, as it facilitated understanding the routine and carrying out actions on prenatal and puericulture days, maximizing the presence of the target audience without compromising the service routine.

The social relevance of extension projects lies in expanding access to information and the active participation of the community in essential services. Public health in Brazil faces obstacles due to the lack of knowledge among the population, whether regarding diseases or social issues that aim to improve the quality of life for others, as seen with the visibility of the project aimed at increasing breast milk donations. In this regard, the distribution of educational materials, such as pamphlets provided by the human milk collection center, combined with awareness-raising actions and lectures, played a key role in spreading knowledge and engaging pregnant women and mothers, facilitating the process. The material provided included information that was thoroughly addressed during the actions, such as the criteria for donation and the destination of the donated milk.

Moreover, the use of social media was an effective strategy in spreading information about breast milk donation. In this project, the Instagram profile was of great relevance in raising community awareness, as it was crucial for the dissemination of informative content. The use of social media allows direct interaction with the public, ensuring the dissemination of scientifically supported information, answering questions, and encouraging new participants to join the project. This digital approach is a way to complement in-person actions, making the project more accessible.

The visit to the HEDA human milk collection center gave the students a more detailed perspective of how the service works, providing integration between the service and education for professional success. The structural limitations observed are an obstacle faced by many Human Milk Banks (BLHs)

in Brazil; however, the availability and commitment of the responsible team are crucial to ensuring quality service. The fact that the facility contains only two rooms designated for collection and storage reinforces the need for investment in the expansion of these services.

Based on the reported activities, it is clear that this extension project achieved its goal, as it was able to collect a significant number of glass jars for donation and bring knowledge about breast milk donation to the community, through visits to UBS as well as on Instagram, helping the collection center secure new donors. However, it had limitations, as it operated in only four UBS, which restricted its reach to the population.

Conclusion

The extension project "Breast Milk Donation: An Act That Saves Lives" demonstrated the relevance of educational actions in promoting maternal and child health, contributing to increased awareness about human milk donation and encouraging the involvement of new donors. The involvement of nursing students, in partnership with healthcare professionals, enabled an integrated and effective approach, benefiting both the training of future nurses and the strengthening of public health services. Furthermore, the actions developed promoted the development of skills and an understanding of the social role of nursing in addressing various topics, such as breast milk donation.

The activities carried out over the 12 months had a positive impact on the community, providing quality information and increasing access for pregnant women and mothers to human milk collection services. The use of social media as a complementary tool for health education was a differentiator in disseminating knowledge, reaching a wider audience and facilitating direct contact with women interested in becoming donors.

The visit to the HEDA milk collection center provided students with a deeper understanding of the structure and functioning of the service, highlighting the need for investments in the expansion and improvement of these spaces. Additionally, interaction with healthcare professionals reinforced the importance of multidisciplinary collaboration for the success of health promotion initiatives.

Thus, it is concluded that extension projects focused on breast milk donation are essential for strengthening the breastfeeding support network, ensuring greater visibility of the topic, and encouraging active community participation. Furthermore, these projects contribute significantly to the training of more prepared and engaged nurses in public health, having a positive impact both academically and in society.

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References

- 1.Organização Pan-Americana da Saúde (OPAS). Aleitamento materno e alimentação complementar [Internet]. [citado em 14 fev. 2025]. Disponível em: https://www.paho.org/pt/topicos/aleitamento-materno-e-alimentacao-complementar.
- 2.Ministério da Saúde (Brasil). Banco de leite humano. Brasília: Ministério da Saúde; 2024 [citado em 14 fev. 2025]. Disponível em: https://www.gov.br/saude/pt-br/acesso-a-informacao/acoes-e-programas/banco-de-leite-humano.
- 3.Almeida JM, Luz SAB, Ued FV. Apoio ao aleitamento materno e a influência na prática da amamentação. Rev Paul Pediatr. 2015; 33(3):355-62. doi:10.1016/j.rpped.2014.10.002
- 4.Oriá MOB, Dodou HD, Chaves AFL, Santos LMDA, Ximenes LB, Vasconcelos CTM. Eficácia de intervenções educativas realizadas por telefone para promoção do aleitamento materno: revisão sistemática da literatura. Rev esc enferm USP. 2018 [citado 14 fev. 2025]; 52:e03333. doi: https://doi.org/10.1590/S1980-220X2017024303333
- 5.Costa DA, Cabral KB, Teixeira CC, Rosa RR, Mendes JLL, Cabral FD. Enfermagem e a Educação em Saúde. Rev Cient Esc Estadual Saúde Pública Goiás "Candido Santiago". 2020 [citado 3 fev. 2025]; 6(3):e6000012. doi: https://doi.org/10.22491/2447-3405.2020.V6N3.6000012
- 6.Pena GG, Pereira PF, Serafim TC, Araújo RMA, Fonseca RMS. Ações em prol do aleitamento materno e doação de leite humano de um projeto de extensão universitária. Rev ELO Diálogos Em Extensão. 2019 [citado 3 fev. 2025]; 8(1):63-69. doi: https://doi.org/10.21284/elo.v8i1.1300
- 7.Bezerra INM, Nascimento JL, Ferreira BNC, Lima JCS, Guerra EC. A extensão universitária na promoção à saúde: projeto Saúde em Foco. Rev de Educação Popular. 2023 [citado 3 fev. 2025]; 22(2):361-373. doi: 10.14393/REP-2023-68179
- 8.Souza KC, Costa LP, Barreto NMF, Siqueira AAMG, Souza SS, Rocha ESC, et al. Políticas públicas e educação em saúde nos projetos de extensão na universidade. Research, Society and Development. 2021 [citado 4 fev. 2025]; 10(4): e58010414379-e58010414379. doi: https://doi.org/10.33448/rsd-v10i4.14379
- 9. Chaves AFL, Nascimento BM, Santos LL, Santos BKO, Cunha ALA, Frota NM. Folder educativo para conscientização da doação de leite materno durante a pandemia da Covid-19. Rev Enfermagem Atual In Derme. 2021 [citado 4 fev. 2025]; 95(34):e-021052. doi: 10.31011/reaid-2021-v.95-n.34-art.1051
- 10.Dias AJ, Leite LP, Oliveira RS, Silveira TF, Dias ML, Salgado JVV. USO DA REDE SOCIAL COMO MEIO DE PROMOÇÃO DA SAÚDE DURANTE A PANDEMIA DO COVID-19. Interfaces-Rev de Extensão da UFMG. 2023 [citado fev. 2025]; 11(1):308-320. Disponível em: https://periodicos.ufmg.br/index.php/revistainterfaces/article/view/37784

11.Pontes MB, Santos TCF, Nogueira ALL, Peres MAA, Rios MZ, Filho AJA. Banco de leite humano: desafios e visibilidade para a enfermagem. Texto & Contexto-Enfermagem. 2017 [citado 4 fev. 2025]; 26(2):e3760015. doi: https://doi.org/10.1590/0104-07072017003760015

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