


**BREASTFEEDING AS A PROTECTIVE FACTOR FOR CHRONIC DISEASES:
KNOWLEDGE OF PREGNANT AND PUERPERAL WOMEN**

**AMAMENTAÇÃO COMO FATOR DE PROTEÇÃO PARA DOENÇAS CRÔNICAS:
CONHECIMENTO DAS GESTANTES E PUÉRPERAS**

**LA LACTANCIA MATERNA COMO FACTOR PROTECTOR DE ENFERMEDADES
CRÓNICAS: CONOCIMIENTO DE LAS MUJERES EMBARAZADAS Y PUERPERALES**

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ABSTRACT

Objective: The aim is to evaluate the knowledge of pregnant and postpartum women about breastfeeding as a protective factor against chronic diseases. **Methodology:** This is a descriptive, quantitative, cross-sectional study conducted between January and March 2023. The sample consisted of 11 pregnant women in the third trimester, 29 postpartum women, and three women who gave birth one year previously. Data collection was conducted at Basic Health Units and during home visits, using a form covering demographic characteristics, information on health care provided during pregnancy and the postpartum period, and knowledge of breastfeeding as a protective factor against chronic noncommunicable diseases. Data were tabulated in Excel spreadsheets and imported into the Stata statistical package (version 12.0). Data were analyzed descriptively and inferentially, and then

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presented in tables. Results: Of the 43 women evaluated, 100% received prenatal care, 91% reported never having participated in a breastfeeding education activity at the primary care unit, and 77% did not receive breastfeeding guidance during their postpartum visit. Regarding knowledge of breastfeeding as a protective factor against chronic diseases, 58.14% reported being unaware of this fact. Final considerations: The findings indicated that just over half of the participants were unaware that breastfeeding is a protective factor against chronic diseases, highlighting the need to strengthen health education strategies aimed at this population.

Keywords: Breastfeeding. Prevention. Chronic Diseases.

RESUMO

Objetivo: Objetiva-se avaliar o conhecimento das gestantes e puérperas sobre a amamentação como fator de proteção para doenças crônicas. **Metodologia:** Estudo descritivo, quantitativo e transversal, realizado entre janeiro e março de 2023. Amostra foi composta por 11 gestantes do terceiro trimestre, 29 puérperas e 3 mulheres que deram à luz há um ano. A coleta de dados foi realizada nas Unidades Básicas de Saúde e em visita domiciliares, por meio de um formulário abrangendo as variáveis de características de perfil demográfico, informações sobre assistência em saúde prestada durante a gestação e puerpério e sobre o conhecimento da amamentação como fator de proteção para as doenças crônicas não transmissíveis. Os dados foram tabulados em planilhas de Excel e importado para o pacote estatístico Stata (versão 12.0) e analisados de forma descritiva e inferencial, posteriormente, expostos em tabelas. **Resultados:** Os resultados apontaram que das 43 mulheres avaliadas, 100% receberam o acompanhamento pré-natal, 91% referiram nunca ter participado de atividade educativa sobre aleitamento na UBS e 77% não ter recebido orientação sobre aleitamento na consulta puerperal. Quanto ao conhecimento da amamentação como fator de proteção para doenças crônicas, 58,14% referiram não ter conhecimento de tal fato. **Considerações finais:** Os achados apontaram que pouco mais da metade das participantes desconheciam que a amamentação é fator de proteção para doenças crônicas, o que revela a necessidade de reforçar as estratégias de educação em saúde voltadas para este público.

Palavras-chave: Amamentação. Prevenção. Doenças Crônicas.

RESUMEN

Objetivo: El objetivo es evaluar el conocimiento de las mujeres embarazadas y postparto sobre la lactancia materna como factor protector frente a enfermedades crónicas. **Metodología:** Se trata de un estudio descriptivo, cuantitativo y transversal, realizado entre enero y marzo de 2023. La muestra estuvo constituida por 11 mujeres embarazadas en el tercer trimestre, 29 puérperas y tres mujeres que dieron a luz un año antes. La recolección de datos se realizó en Unidades Básicas de Salud y durante visitas domiciliarias, mediante un formulario que cubría características demográficas, información sobre la atención médica brindada durante el embarazo y el puerperio, y el conocimiento de la lactancia materna como factor protector contra enfermedades crónicas no transmisibles. Los datos se tabularon en hojas de cálculo de Excel y se importaron al paquete estadístico Stata (versión 12.0). Los datos se analizaron descriptiva e inferencialmente, y luego se presentaron en tablas. **Resultados:** De las 43 mujeres evaluadas, el 100% recibió atención prenatal, el 91% reportó no haber participado nunca en una actividad de educación sobre lactancia materna en la unidad de atención primaria y el 77% no recibió orientación sobre lactancia materna durante

su consulta posparto. En cuanto al conocimiento de la lactancia materna como factor protector contra enfermedades crónicas, el 58,14% reportó desconocerlo. Consideraciones finales: Los hallazgos indicaron que poco más de la mitad de las participantes desconocía que la lactancia materna es un factor protector contra enfermedades crónicas, lo que resalta la necesidad de fortalecer las estrategias de educación para la salud dirigidas a esta población.

Palabras clave: Lactancia Materna. Prevención. Enfermedades Crónicas.

1 INTRODUCTION

The social and economic changes of the last decades and their consequent changes in the lifestyles of contemporary societies have contributed to the increase in the incidence of chronic diseases, which today constitute a serious public health problem. This problem can be prevented by adopting practices that can start in advance, such as breastfeeding, which is a protective factor.

Chronic non-communicable diseases (NCDs) are characterized by a set of pathologies with multiple causes and risk factors, long latency periods and prolonged course. In addition, they have a non-infectious origin and can result in functional disabilities (BRASIL, 2019).

In recent decades, NCDs have been considered a universal disease of increasing prevalence. Cardiovascular diseases, diabetes, obesity, respiratory diseases, behavioral and mental health changes are responsible for more than 60% of deaths worldwide (SAWYER et al., 2018).

Thus, it is important to implement prevention measures from the beginning of life. Therefore, to maintain health and well-being, changes in behaviors and habits are necessary, such as regular physical activity and good eating habits from the beginning of life, since exclusive breastfeeding (EBF) is recommended until six months of life.

Breastfeeding (BF) is ideal to meet all dietary needs and is highly nutritious during the first six months of life, providing three quarters of the protein that the child needs from six to twelve months. In addition to providing these elements, breast milk contains mineral salts, vitamins, sugar and fats (MONTENEGRO; REZENDE FILHO, 2016).

BF has a protective effect against NCDs, being crucial for the better formation of the child's body's defense system, protecting it against infections and promoting healthy growth, taking its benefits until adulthood.

Considering the importance of breastfeeding for child health, the promotion of breastfeeding should be initiated during prenatal care, where pregnant women are monitored by professionals from the Family Health Strategy (FHS), from the moment of confirmation of pregnancy until delivery. Nurses should guide and support this practice, which should go beyond empirical knowledge and technical skills, but should welcome and empower women to practice breastfeeding (MONTESCHIO; GAÍVA; MOREIRA, 2015).

Nurse counseling, information and communication play a fundamental role in the clinical management of breastfeeding. The performance of this professional is extremely important to provide support and promote EBF, helping postpartum women to overcome

fears, frustrations and difficulties that may arise during the breastfeeding process, thus avoiding early weaning.

Despite the rapid growth of NCDs, their impact can be reversed through broad interventions and health promotion, to reduce their risk factors, and by improving health care, early detection and timely treatment, such as guidance on breastfeeding during pregnancy and the puerperium.

In this scenario, we evaluate the mother's knowledge about the importance of breastfeeding, which is essential for health professionals to be able to know the problems faced by pregnant and puerperal women during breastfeeding and thus propose strategies to solve the most common difficulties encountered during this period.

2 METHODOLOGY

This is a quantitative, descriptive and cross-sectional study. The study was conducted from January to March 2023, in the FHS in the municipality of Picos/PI. The population sample for the study consisted of 11 pregnant women in the 3rd trimester, 29 puerperal women, 3 women who had children up to one year old and who received nursing care in the FHS in the urban area, in the municipality of Picos-PI.

Regarding the inclusion criteria: pregnant women in the 3rd trimester of pregnancy, postpartum women and women who had children up to one year after delivery, who had prenatal consultations at the FHS.

The following exclusion criteria were used: Women under 18 years of age who will not be accompanied by their guardian; Postpartum women with contraindications for breastfeeding; Pregnant and postpartum women unable to answer the form, as in the case of mental disorders.

Data collection began after obtaining approval from the Research Ethics Committee (CEP) of the State University of Piauí (UESPI), with opinion number 5,874,489. Where it was carried out in the period between January and March 2023.

In carrying out the collections, initially, a meeting was held with the FHS professionals to explain the objectives and operationalization of the study and to request a survey of the number of pregnant women in the 3rd trimester, postpartum women and women who had children up to one year old who were registered in the area covered by the family health teams in the municipality of Picos-PI.

Subsequently, the dates of data collection were scheduled with the nurse responsible for the team, which were carried out during prenatal consultations, childcare or home visits. On the day of data collection, the objectives of the study were clarified to the participants by the researcher and the data were collected through the application of a form during the waiting period at the reception or at home.

In some cases, the researcher scheduled home visits to the homes of pregnant and puerperal women, by prior appointment with the Community Health Agents (CHA), in order to define the best day and time, according to the participant's availability, to carry out the collection.

A structured data collection instrument developed by the researcher was used, containing the variables of demographic profile characteristics, information on care provided and knowledge about breastfeeding and its contribution as a protective factor against chronic non-communicable diseases.

3 RESULTS

Among the 43 women (pregnant women, postpartum women and women with children up to one year old) evaluated, the mean age was 26.5 years (± 6.84), ranging from 15 to 39 years and the education incomplete or complete high school (74.4%).

Regarding prenatal care, 100% reported having had it, with the average number of consultations being approximately 7.17 (± 2.86). Among the pregnant women followed, those who had them in the public network prevailed (95.35%), starting in the 1st trimester (69.77%).

With regard to health education activities and puerperal follow-up, it was possible to note the low coverage of these activities, since 79% reported not having received a postpartum consultation, 77% had not received guidance on breastfeeding in the puerperal consultation and 91% reported never having participated in an educational activity on breastfeeding in the FHS. Only guidance on breastfeeding during pregnancy stands out, which was reported by 60% of the consultations.

When asked about breastfeeding, 28 (65.11%) reported having previously breastfed and different difficulties were pointed out, the most prevalent problems were those related to the nipples (78.5% ($n = 22$)), followed by inadequate latch, 39.3% ($n = 11$), problems with milk with 32.1% ($n = 9$) and the occurrence of mastitis, 28.6% ($n = 8$).

Finally, the pregnant women were evaluated about different aspects related to the breastfeeding period, which indicated that breastfeeding should start in the first hour of life

according to the availability of mother and baby (72.09%); that exclusive breastfeeding should last 6 months (86.05%) and complementary breastfeeding "as long as there is milk" (23.26%). In addition, the majority stated that there is no such thing as weak milk (90.70%) and that they knew how to provide a good latch (88.37%) (Table 1).

Table 1

Knowledge of the evaluated participants about breastfeeding. Picos, 2023. (n=43)

	n	%
When should breastfeeding be started?		
Within the 1st hour of life as soon as the mother and baby are ready	31	72,09
Start time is not important	5	11,63
After the 1st hour of life	7	16,28
What is the recommendation for the duration of exclusive breastfeeding?		
1 month	1	2,33
6 months	37	86,05
I don't know	5	11,63
What is the recommendation for the duration of complementary breastfeeding?		
1 year	6	13,95
1 year	1	2,33
2 years	9	20,93
6 months	6	13,95
Until when mom wants	9	20,93
Even when there is milk	10	23,26
I don't know	2	4,65
Is there such a thing as weak milk?		
No	39	90,70
Yes	4	9,30
Do you know how to avoid engorgement?		
No	26	60,47
Yes	17	39,53
Do you know what to do for a good latch?		
No	5	11,63
Yes	38	88,37

Source: Prepared by the author, 2023.

When asked about the fact that breastfeeding plays a protective role against chronic diseases, 58.14% reported not being aware of this fact, while 37.21% (n = 16) informed that it would be a protection against the development of hypertension, diabetes and obesity together (Table 2).

Table 2

Knowledge of the evaluated participants about breastfeeding as a protective factor for chronic diseases. Picos, 2023. (n=43)

	n	%
Are you aware that breastfeeding is a protective factor for:		
Diabetes Mellitus	1	2,33
Hypertension and Diabetes Mellitus	1	2,33
Hypertension, Diabetes Mellitus and Obesity.	16	37,21
I don't know	25	58,14

Source: Prepared by the author, 2023.

4 DISCUSSION

This study aimed to evaluate the knowledge of pregnant and postpartum women about breastfeeding as a protective factor against chronic diseases.

Regarding the monitoring of pregnancy, prenatal care is a set of actions that are simultaneously preventive, health promotional, diagnostic and curative, aiming at favorable results for the pregnant woman and her child. The results evidenced here are in accordance with the Brazilian recommendation for prenatal care of at least six consultations, including vaccination, routine laboratory tests and the use of supplements or medical treatments for complications (BRASIL, 2012).

A study with data from the National Health Survey indicated that of the 1,918 women eligible for the prenatal questionnaire, 1,851 (96.50%) reported having received prenatal care in their last pregnancy. However, just over 30% of women reported having had six prenatal visits, different from what is evidenced here (FLORES et al., 2021).

An essential factor in gestational monitoring, health education is a crucial resource that benefits professionals, as its purpose is to make women aware of their health needs and prevent possible complications, especially those related to breastfeeding. By encouraging healthy lifestyle practices and promoting self-care, health education becomes an essential tool for establishing a healthy routine in the lives of pregnant women (CARDOSO et al., 2019; DA SILVA et al., 2019). Despite the attested importance of educational activities, our results showed a low occurrence of such activities.

Numerous studies have shown different difficulties faced by pregnant women in the breastfeeding process. Breastfeeding is a vital process for the health and well-being of both

the baby and the mother. However, many pregnant women face challenges and difficulties during this time that can result in early weaning and interruption of breastfeeding.

One of the main difficulties faced by pregnant women during breastfeeding is nipple pain, which is the most reported in the present study. This pain can occur due to an improper latch on by the baby, causing injuries and discomfort for the mother. Another physical challenge is insufficient milk production, which can lead to maternal worry and a feeling of incompetence. Factors such as breast engorgement, mastitis, and inverted nipples can also cause significant difficulties (ABREU et al., 2022; LISBOA et al., 2022; NASCIMENTO et al., 2021).

Reiterating the main difficulties faced, previous studies corroborate the findings evidenced here by pointing out the difficulties with the nipples, such as abrasions of the breast tissue (ROSA; DELGADO, 2017; SILVA; GOETZ; SANTOS, 2017) and engorgement (MORAES et al., 2020), as the most prevalent problem faced by women during breastfeeding.

Despite the difficulties reported in the breastfeeding process, the assessment of pregnant women's knowledge about breastfeeding proved to be adequate for most of the aspects evaluated here.

Maternal knowledge can positively influence both breastfeeding practices (GEWA; CHEPKEMBOI, 2016), regarding practices related to the introduction of complementary feeding. Although 91% reported never having participated in health education activities in the present study, other authors showed that the knowledge acquired by mothers comes mainly from health professionals, but currently, the media is a powerful source of information that has a significant influence on decision-making and, therefore, should be used with caution (PIZZATTO et al., 2020; SILVA; GOETZ; SANTOS, 2017).

The importance of pregnant women's knowledge lies in the fact that mothers with good maternal knowledge did not change their behavior in relation to their children's feeding, introducing ultra-processed foods at an early age (AKADRI; ODELOLA, 2020; NASCIMENTO et al., 2021; ROSE; DELGADO, 2017). In another study on knowledge related to breastfeeding, the most outstanding benefits included providing all the necessary nutrients, contributing to the baby's growth and development, and helping the mother lose weight (QUEIROZ et al., 2021). The prevention of chronic diseases as a benefit of breastfeeding, despite a vast literature on this subject, was not mentioned by the pregnant women.

In this sense, educational activities are important factors for the construction and consolidation of this knowledge. In a quasi-experimental study, in the intervention group

(which received educational activities), the averages indicated a significant increase in the level of self-efficacy of nursing mothers in relation to breastfeeding, when compared to the observation group (SCHULZ et al., 2020).

Breastfeeding is one of the best public health investments available to countries at all levels of development. In the first year of life, adequate nutrition for the infant (exclusive breastfeeding until about 6 months) reduces infant mortality and hospital admissions by 50% or more. Nutrition in the early years of life has important influences, including childhood diseases, obesity, cognitive development, hospitalizations, and future chronic diseases (BINNS; LEE, 2019; NORTH et al., 2022).

Many studies have found that the incidence and duration of breastfeeding are lower among children with chronic diseases than among children without chronic diseases (BINNS; LEE; LOW, 2016; DAVIS, 2001). There are many biological and epidemiological studies on the beneficial effects of breastfeeding in childhood on chronic diseases in adulthood, particularly on hypertension, obesity, diabetes, hypercholesterolemia, and cardiovascular diseases (KELISHADI; FARAJIAN, 2014).

There is a direct relationship between obesity and early weaning and inadequate and/or early complementary feeding. Therefore, it is necessary to encourage breastfeeding, as a measure to prevent childhood overweight and obesity (VIANA FILHO et al., 2020). A recent analysis of 2,553 infants from the CHILD cohort reported an inverse dose-dependent association between breastfeeding and body mass index (BMI) at 1 year of age (AZAD, 2019).

The effect of breastfeeding on hypertension has attracted a lot of interest due to the differences between breast milk and artificial formulas, especially in terms of their sodium and fatty acid content. It has been documented that breastfeeding can affect systolic and diastolic blood pressures (FORSYTH et al., 2003; MARTIN et al., 2004). In addition, the fasting blood glucose level is inversely proportional to the long-chain polyunsaturated fatty acids in the skeletal muscle membrane. It appears that changes in the skeletal muscle membrane play an important role in the development of insulin resistance and subsequent hyperinsulinemia, which gradually leads to beta cell defects and ultimately to type II diabetes (ARSLANIAN, 2002; KELISHADI; FARAJIAN, 2014).

This study evidenced relevant findings that needed immediate intervention, for example, the increase in health education activities. The cross-sectional nature of the

research in question makes some more targeted conclusions unfeasible, but it does not take away from the problems highlighted here and the need for planning for intervention in them.

5 CONCLUSION

The findings of the study showed that just over half of the participants were unaware that breastfeeding is a protective factor against NCDs. This reveals that despite the encouragement and guidance on the benefits of breastfeeding for mother and baby by PHC professionals, the benefits of breastfeeding in adult life are not oriented.

As NCDs have high morbidity and mortality, especially in adults and the elderly, even though their prevention and control are strategic actions of the FHS, there are still some points that need to be worked on with the population, such as reinforcing breastfeeding as a protective factor against NCDs. Since cardiovascular risk factors and chronic diseases can also appear in childhood and adolescence.

However, the study has limitations because it is cross-sectional, and to reinforce the relationship between breastfeeding and a protective factor for chronic diseases, it is necessary to carry out longitudinal studies that monitor the impact of breastfeeding on people's lives, in order to bring findings on the efficacy and effectiveness of breastfeeding as a protective factor against chronic diseases. as well as percentages of reduction of these diseases in people who received breastfeeding according to the recommendations of the Ministry of Health.

Thus, it is suggested to reinforce health education and health promotion strategies, emphasizing the importance of breastfeeding as a protective factor against chronic diseases, and cardiovascular risk factors from childhood.

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