

# Health Education to Strengthen Breastfeeding Actions

ORIGINAL

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## Abstract

**Introduction:** Breast milk is, without a doubt, the food that provides all the nutrients essential for the healthy growth and development of children. Through effective breastfeeding practices, it is possible to prevent several chronic noncommunicable diseases in childhood, adolescence, and adulthood.

**Objective:** To investigate the relevance of using an educational strategy in breastfeeding promotion.

**Methods:** It was a descriptive study with uncontrolled analytical approach conducted with 36 mothers of children under 2 years of age about breastfeeding, through an educational intervention using the booklet "Breastfeeding: an act of love". Data collection took place in two moments (pre-test and post-test). Ethics Committee approved the project under protocol No. 058657.

**Results:** Data analysis revealed that 41.6% of the interviewees stated that they did not receive guidance about breast problems from any professional during prenatal care, and 22% reported having presented nipple fissures. Regarding the initiation of breastfeeding, 11.1% of the women interviewed did not know the importance of colostrum, and 30.6% did not know its benefits. Assessment of the mothers' knowledge before and after the intervention obtained a percentage of correctness of 50.7% and 70%, respectively.

**Conclusion:** The educational activity to encourage breastfeeding was able to increase the mothers' knowledge about breastfeeding and its health benefits for women and children, revealing the relevance of using this educational strategy.

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Breast Feeding; Child Health; Health Education; Infant Nutrition; Food and Nutrition Education.

## Introduction

Breast milk has all the nutrients essential for the healthy growth and development of children. It should be encouraged exclusively for the first six months of life and supplemented at least up to two years of age. The lack of knowledge of mothers about breastfeeding and its benefits, their personality, and breastfeeding self-efficacy constitute crucial factors that can directly interfere with the early interruption of this practice [1].

The decision-making, implementation, and maintenance of breastfeeding result from a difficult interaction between several determinants, such as maternal attitudes, biological conditions, nipple conformation, sucking technique, social support in the workplace and day care centers, and specially the major influence of family support [2].

Health education actions on breastfeeding represent an important tool to minimize the difficulties found, and should be developed before and during pregnancy, in the puerperium, and in childcare consultations, with greater emphasis in the pregnancy period, since this moment offers a greater absorption and consolidation of information among mothers, in which the family support and participation are essential. Thus, it is possible to avoid an overload of information in the postpartum period, when the mother and family are dealing with intense changes in the routine and a lot of tension [1].

Breastfeeding promotion activities should be guided by the precepts that rule popular education, highlighting the experiences of the actors involved and motivating individual and collective changes. In this perspective, these educational practices should focus on the pursuit of overcoming activities that reduce the transfer of knowledge, providing direct participation, seeking to encourage logical reasoning towards reality, and promoting solid knowledge through dynamic and effective learning [3].

Due to the low adherence to breastfeeding, this study proposes the need to strengthen health edu-

cation actions to promote breastfeeding up to two years of age or beyond, seeking to achieve the goals recommended by the World Health Organization (WHO) and the Ministry of Health, since Brazil is currently far from these targets.

With effective breastfeeding practices, it is possible to prevent several chronic noncommunicable diseases in childhood, adolescence, and adulthood. Therefore, this study presents the hypothesis of solution through a booklet-type educational strategy that can increase the mothers' knowledge scores about breastfeeding, leading to the growth of the breastfeeding rate in children under two years of age. Thus, the present study aims to investigate the relevance of this educational strategy for the breastfeeding promotion.

## Method

This is a descriptive study developed in the Family Health Strategy (FHS) Units of the urban area of the municipality of Picos-PI, Brazil, from March 2015 to February 2016.

Study population comprised mothers of children under two years of age, who were in the process of breastfeeding, and belonged to the area covered by the Basic Health Units (BHU) studied. The sample included all the mothers who attended the BHU during the childcare consultations from October to November 2015, totaling 36 mothers.

Research exclusion criteria were:

- Adolescents without authorization and consent of the legal guardian to participate in the study;
- Women who presented clinical or obstetric complications in the puerperal period or with pathologies that contraindicate breastfeeding;
- Mothers who attended the BHU but did not belong to the coverage area of the FHS.

For data collection, a semi-structured form adapted and designed from other studies and scientific publications was used [4, 5, 6]. It contained

information on child identification, socioeconomic data, pregnancy and prenatal care of the mother, breastfeeding on the first day of life, and mother's knowledge about breastfeeding.

This form was applied to mothers at two different times (pre-test and post-test). Pre-test took place in the waiting room of the BHU as soon as the mothers arrived for the childcare consultation, before receiving any guidance or information about breastfeeding and its benefits.

After the pre-test was applied to all the participants, educational activities occurred, using the booklet "Breastfeeding: an act of love", well-illustrated and with an accessible language that had been previously developed and validated by field experts. Following the detailed explanation of the content of the booklet, the post-test was collected, aimed at evaluating the knowledge obtained by the mothers with the intervention.

During the post-test collection, the mothers stayed in separate rooms to avoid influencing other people's responses. Each educational activity lasted 60 minutes on average.

For statistical analysis, the Statistical Package for the Social Sciences, version 20.0, for Windows® was used. Data were organized into tables and analyzed based on absolute frequencies, percentages, measures of central tendency, dispersion, and the paired sample t-test. Afterwards, they were analyzed according to the current literature.

For conducting the study, all the ethical principles contained in Resolution 466/13 [7] regarding research involving human subjects were followed. Research Ethics Committee of the Federal University of Piauí approved the project under protocol No. 058657/2014.

## Results

The research was carried out with a sample of 36 women who were in the breastfeeding process and attended the health units studied to conduct childcare consultations.

**Table 1.** Socioeconomic profile of mothers. Picos, 2016. n=36.

Variables	SW* (p-value)	Mean	Standard deviation	Median
Income (BRL)	0.000	782.33	609.712	780.00
Age (years)	0.022	24.11	6.196	23.00
Education (years)	0.061	8.83	4.039	10.00

\*: SW: Shapiro-Wilk.

**Table 1** presents the socioeconomic profile of the mothers investigated. Data analysis revealed the average monthly income of BRL 782.33, mean age of 24.11 years, and a median of 10 years of education.

**Table 2** demonstrates the evaluation of prenatal guidelines on breast problems, in which 50% of the women reported having been guided by the nurse practitioner on the care they should have with the breasts to avoid and/or treat the problems. It was verified that 41.6% of the interviewees reported not having received these orientations from any professional during the consultations.

**Table 2.** Evaluation of guidelines on breast problems in prenatal and puerperium. Picos, 2015. n=36.

Variables	N	%
Guidelines in prenatal care		
Yes, by nurse	18	50.0
Yes, by physician	2	5.6
Yes, by nursing student	1	2.8
Did not receive guidance	15	41.6
Breast problems		
Flat or inverted nipples	2	5.6
Nipple fissure	8	22.2
Breast engorgement	1	2.8
Plugged ducts and mastitis	1	2.8
Nipple Pain	1	2.8
Guidelines on puerperium care		
Had no problems	23	63.9
Yes, by nurse	5	13.9
Yes, by nursing technician	1	2.8
Yes, by physician	1	2.8
Did not receive guidance	1	2.8
Did not receive guidance	5	13.9

**Table 3.** Evaluation of the mothers' prior knowledge about the initiation of breastfeeding. Picos, 2016. n=36.

Variables	N	%
Importance of colostrum		
Yes	32	88.9
No	4	11.1
Benefits of colostrum		
It protects against diseases	11	30.6
It is nutritious	10	27.8
It is not important	4	11
Does not know	11	30.6
First breastfeeding		
Right after delivery	26	72.2
When arrived at the infirmary	7	19.4
The day following delivery	3	8.6

SW: Shapiro-Wilk; IQR: Interquartile range.

When asked about the occurrence of some breast problem that could interfere with breastfeeding, 22.2% reported nipple fissures. And when asked if they received any type of treatment guidance about breast problems, 13.9% of the mothers informed not having received any type of guidance.

**Table 3** provides an assessment of mothers' prior knowledge about the initiation of breastfeeding. Data analysis showed that 11.1% of the interviewed women did not know the importance of colostrum, and among those who answered it was important (89.9%), 30.6% were unable to list its benefits.

Regarding how much time after delivery the first breastfeeding should occur, 72.2% of the mothers reported that breastfeeding should take place right after delivery, and 8.6% declared it should only occur on the day following delivery. (**Table 4**)

**Table 4.** Mother's knowledge about breastfeeding. Picos, 2016. n=36.

Variables	Mean	Standard deviation	p-value
re-test	8.11	1.450	0.000*
Post-test	11.25	1.461	

\*: Paired sample t-test.

It was observed that the average number of correct answers after the intervention with the booklet was higher than before ( $p=0.000$ ), indicating an increase in the mothers' knowledge through the strategy used.

## Discussion

Analyzing the results of this research enabled to observe that the women surveyed received an average monthly family income lower than a minimum wage, corroborating the data found in study, in which 69.7% of the sample had monthly income lower than a minimum wage [8].

Low socioeconomic conditions are constantly associated with factors that may cause early termination of breastfeeding, due to several aspects, such as lack of knowledge about breastfeeding and its benefits, lack of knowledge of breastfeeding techniques, causing discomfort during the act, having to work and not knowing how to store the milk to be offered at another time, among others [9].

Furthermore, data showed that mothers presented an average age of 24.11 years, characterizing a group of young women. Corroborating the data found in the study [10] developed in a tertiary public maternity hospital of the Northeast Region of Brazil, which found a mean maternal age of  $26 \pm 7$  years in their results, and the study that found a mean age of 25.7 years [11].

Regarding the educational level of the participating mothers, a low median of 10.6 years was obtained. An even more disturbing finding, than the one verified in this research, was identified in a study whose average years of education successfully completed reached only 7.2 years [12].

In the analysis of this research about prenatal guidelines on breast problems, 50% of the women reported being guided by the nurse practitioner, and 41.6% declared not having received any guidance during prenatal care. Similar research showed that 61.9% of the women reported having received no

guidance, and those who received it (38.1%) did it through nursing orientations (62.5%) [13].

In line with the abovementioned data, it was highlighted that 48% of the women surveyed had access to information that during breastfeeding their breasts could undergo pathological changes, presenting fissures, inflammation or stiffness, and engorgement, while 52% informed not having acquired knowledge about these problems during consultations [14].

In the present study, mothers indicated nipple fissure (22%) as the main breast problem capable of interfering with breastfeeding. Nipple fissures occurred in 36% of the sample, and these wounds worsened at each feeding, causing much pain during the baby's sucking [14]. Study pointed out that 66.7% of the mentions of pain reported by women who were breastfeeding were caused by nipple fissures [9].

Moreover, this research identified that 13.9% of the mothers reported not having received any kind of guidance to treat the breast problems caused by breastfeeding. This is a cause for concern, because breast problems are a determining factor for breastfeeding abandonment, due to the pain and discomfort they can cause [15].

Data analysis regarding the evaluation of the mothers' prior knowledge about the initiation of breastfeeding identified that 11.1% of the women interviewed had no knowledge about the importance of colostrum. Another troubling result was that 30.6% of the mothers who answered that colostrum was important (89.9%) declared not knowing its benefits.

Knowing the characteristics of colostrum and its influence on infant nutrition is imperative for health promotion. The importance of offering this first milk, given its great benefits, can be considered the first vaccine given to the newborn, providing immunization by the presence of immunoglobulins and large amount of proteins and vitamin A [16].

In addition to its immunological and bioactive importance, colostrum has epidermal growth factors,

which contribute to the maturation of the intestinal mucosa, hence preventing intestinal colonization by disease-causing microbes [17].

When women were investigated about the time for the first feeding, 72.2% reported that breastmilk supply should occur right after delivery, and 8.6% said that it should occur only the day following delivery. Similar study found that 71.4% of the women started breastfeeding 30 minutes after delivery and 42.9% had breastfed while they were still in the delivery room [13]. Nevertheless, in a study developed in the city of Recife-PE, Brazil, 25.3% of the mothers started breastfeeding in the first two hours after delivery and 64.0% after three hours of birth [18].

The importance of breastfeeding in the first hour of life is related to a greater adherence and duration of breastfeeding, being an effective measure to reduce infant mortality, especially in developing countries, positively affecting the neonate's health both by the characteristics of the milk and by the mother-infant contact [17].

When assessing the mothers' knowledge before and after the intervention, it was observed that the mean number of correct answers after the intervention was higher than before ( $p=0.000$ ), corroborating the study carried out with pre- and post-intervention evaluation on the knowledge about breastfeeding, which showed that the average score increased from 5.9 to 14.4 ( $p<0.001$ ), demonstrating an increase in the percentage of correct answers, thus confirming the importance of developing educational strategies for the knowledge construction, which can change practices and attitudes, facilitating the adherence to breastfeeding [19].

Identifying the factors that contribute to the non-adherence to breastfeeding is a difficult task, but essential in the search for an effective breastfeeding process, since such data can enable the implementation of effective promotion and support activities to this practice. This study identified several of these factors, such as low socioeconomic conditions, low age, and low maternal education, besides realizing that mothers often do not receive the neces-

sary prenatal and puerperium guidelines, creating a knowledge deficit that directly interferes on the adherence and duration of the breastfeeding process.

## Conclusion

Research data enabled to identify that using the educational booklet to encourage breastfeeding had a beneficial effect, since it was able to increase the mothers' knowledge about breastfeeding and its health benefits for women and children, proving the relevance of applying this educational strategy.

Given the above, it is possible to recommend the use of the booklet "Breastfeeding: an act of love" for all the professionals involved in the health of families, especially nurses, since they are directly involved in promoting the health of the population, being able to minimize difficulties in the breastfeeding process.

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