# Lactational amenorrhea: nurses experience and the promotion of this alternative method of contraception*

LACTAÇÃO COM AMENORRÉIA: EXPERIÊNCIA DE ENFERMEIROS E A PROMOÇÃO DESSA OPÇÃO CONTRACEPTIVA

LACTANCIA CON AMENORREA: EXPERIENCIA DE ENFERMEROS Y LA PROMOCIÓN DE ESA OPCIÓN ANTICONCEPTIVA

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**ABSTRACT**

This is a cross-sectional, field study that used a quantitative approach with the objectives to identify nurses' personal experiences with breastfeeding and with the Lactactional Amenorrhea Method (LAM); learn the reasons for not adhering to breastfeeding or adhering to mixed feeding; establish the relationship between nurses' personal experience with the LAM and their giving orientations about this contraceptive method to users of the Primary Health Care Center. Participants were 137 nurses with the Family Health Strategy in Fortaleza, Ceará, Brazil, and data collection was performed through interviews. Most participants were female; i.e., 121 participants (88.3%). The age range was 26 to 59 years, with an average of 38.3 years. Sixty-six participants (94.2%) had a previous experience with breastfeeding, 61 (92.4%) of which adhered to Exclusive Breastfeeding (EB), 5 (7.6%) to Mixed Feeding (MF); and 4 (5.8%) did not breastfeed. The time of EB ranged from one to six months, with an average 4.31 months. Twelve nurses (19.6%) followed the LAM. The study showed that the nurses' personal experience with the LAM did not affect the promotion of this method to the clientele that they assist.

**KEY WORDS**

Family planning.
Natural family planning methods.
Breast feeding.
Nurses.
Family Health Program.

**RESUMO**

Estudo transversal, de campo, com abordagem quantitativa. Objetivou-se identificar experiências pessoais de enfermeiros com aleitamento materno e com o método da Lactação com Amenorréia (LAM); conhecer motivos para a não adoção do aleitamento materno ou adoção do aleitamento misto; estabelecer a relação entre a experiência pessoal de enfermeiros com a LAM e a orientação desta forma de anticoncepção à clientela da UBS. Estudo realizado com 137 enfermeiros da Estratégia Saúde da Família de Fortaleza-CE, por meio de entrevista. Houve predominância do sexo feminino, com 121 participantes (88,3%). A faixa etária variou de 26 a 59 anos, com média de 38,3. 66 entrevistados (94,2%) tiveram experiência com aleitamento e destes 61 (92,4%) realizaram Aleitamento Materno Exclusivo (AME), 5 (7,6%) AMM; 4 (5,8%) não amamentaram. O tempo de AME variou de um a seis meses, com média de 4,31 meses. Doze (19,6%) usaram a LAM. O estudo demonstrou que a experiência pessoal de enfermeiros com a LAM não influenciou na promoção deste método entre a clientela assistida por esses profissionais.

**DESCRITORES**

Planejamento familiar.
Métodos naturais de planejamento familiar.
Aleitamento materno.
Enfermeiras.
Programa Saúde da Família.

**RESUMEN**

Estudio transversal de campo con abordaje cuantitativo. Se objetivó identificar experiencias personales de enfermeros con amamantamiento materno y con el método de la Lactancia con Amenorrea (LAM), conocer los motivos para la no adopción del amamantamiento materno o la adopción de alimentación mixta, establecer la relación entre la experiencia personal de enfermeros con la LAM y la orientación de las pacientes del UBS hacia esta forma anticonceptiva. Realizado con 137 enfermeros de la Estrategia de Salud de la Familia de Fortaleza, Ceará, Brasil, a través de entrevista. Hubo predominancia del sexo femenino, 121 (88,3%); la faja etaria varío entre 26 y 59 años con media de 38,3; 66 (94,2% tuvieron experiencia con amamantamiento, y de éstos, 61 (94,2%) realizaron Amamantamiento Materno Exclusivo (AME), 5 (7,6%) AMM; 4 no amamantaron. El tiempo de AME varió de uno a seis meses, con media de 4,31 meses. Doce (19,6%) usaron la LAM. El estudio demostró que la experiencia personal de enfermeros con la LAM no influenció en la promoción de este método a las pacientes atendidas por tales profesionales.

**DESCRIPTORES**

Planificación familiar.
Métodos naturales de planificación familiar.
Lactancia materna.
Enfermeras.
Programa de Salud Familiar.

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## INTRODUCTION

Health professionals, especially nurses, play an important role as providers of Contraceptive Methods (CM) to the population cared for by the Family Health Strategy (FHS) in the Brazilian health system. Currently, nurses are the main health professionals responsible for care related to family planning in the country: they provide information about, promote and distribute the different CM authorized by the Ministry of Health. This article emphasizes the natural Lactational Amenorrhea Method (LAM).

LAM is 98% effective provided that the woman is in postpartum amenorrhea and exclusively breastfeeding a child who is less than six month old, from 10 to 12 times a day during the first weeks postpartum, and 8 to 10 times a day plus one time during the night in the first months[1]. Thus, LAM depends on the adoption of Exclusive Breastfeeding (EBF), a practice that benefits both mother and child.

The FHS is for promoting EBF and LAM since health promotion is among its main goals. However, even with the implementation of the FHS and valorization of health to the detriment of disease, many professionals adopt practices considered curative, centered on the prescription of medication, and evaluated as having a low impact on the concretization of health promotion and adoption of EBF and LAM. Such care can be effectively offered by the FHS, which generally knows the family dynamics and has strong ties established with families, thus, is in an advantageous position to promote health and expand the options of CM available to the population. The greater the variety of CMs offered to the population, the higher the chances of meeting the needs of the population in relation to contraception, ensuring that individuals have free choice, a right provided in the Federal Constitution.

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Despite the benefits provided by EBF to women as an essential condition to LAM and for the survival of children, breastfeeding is not a very popular practice in developing countries. EBF is recommended for children up to six months of age and is essential to meeting the nutritional and metabolic demands of newborns[1]. In this context, the health professionals' approach to this matter can influence the decision of women in relation to whether they breastfeed their children. Negative attitudes and inappropriate beliefs held by nurses in relation to EBF can interfere in the support and encouragement provided to pregnant women and mothers in relation to this practice[2].

LAM adherence was assessed in a study carried out with 1,490 women in Mexico, of which 54.2% adhered to LAM after having received appropriate counseling on the method, while the remaining 45.8% refused. The latter reported lack of trust in its efficacy[3]. Such a fact reinforces the important role of nurses as promoters of this method, in providing correct information concerning its use and demystification.

Departing from the assumption that a positive attitude of professionals in relation to breastfeeding and LAM can positively affect women's decision, some questions emerged: What is the personal experience of nurses with breastfeeding and LAM? What are the reasons that lead nurses to practice breastfeeding and LAM or not to do so? Does personal experience with EBF or mixed breastfeeding (MBF) and LAM have any association with the professional practice of promoting the method?

## OBJECTIVES

To identify the personal experiences of nurses related to breastfeeding and LAM; ascertain the reasons for not adopting EBF or MBF; establish the relationship between the personal experience of nurses with LAM and counseling provided to the population.

## METHOD

This cross-sectional field study with qualitative approach was conducted in the Health System of Fortaleza, CE, Brazil with nurses from the Family Health Strategy (FHS). A total of 308 FHS teams work in this system, of which 281 include nurses[4]. The probabilistic sample was based on a formula to calculate finite populations (N=281)[5]. The level of confidence was established at 95%, prevalence of error of 50%, and the maximum error allowed was 6%, the sample corresponded to 137 nurses. The following inclusion criteria were used: having graduated more than one year ago and having worked for more than one year with family planning.

Data were collected through interviews carried out in Primary Care Units from February to July 2008. A structured form (Annex) was used and the reports were concomitantly recorded in the form itself by the researcher.

Data were organized and analyzed using the Statistical Package for Social Science (SPSS), version 15.0 for Windows and the results are presented in tables and analyzed in light of the authors' knowledge of the pertinent literature. Fisher's exact test was used to verify association among the categorized variables.

Ethical and legal aspects related to research involving human subjects were complied with according to Resolution no. 196/96, National Council of Health[6]. The project was submitted to and approved by the Research Ethics Committee at the Federal University of Ceará (protocol no. 02/2008). Each nurse was informed of the study's objectives and expressed consent by signing a free and informed consent form.

## RESULTS

Table 1 presents the demographic data of the interviewed nurses.

**Table 1** - Distribution of the number of nurses according to demographic data, Family Health Strategy - Fortaleza, CE, Brazil - 2008

| Variables (n=137) | N | % |
|---|---|---|
| **Gender** | | |
| Female | 121 | 88.3 |
| Male | 16 | 11.7 |
| **Age in years(x=35.16; s=7.77)** | | |
| 23 – 30 | 48 | 35.0 |
| 31 – 35 | 34 | 24.8 |
| 36 – 40 | 25 | 18.4 |
| 41 – 59 | 30 | 21.8 |
| **Children** | | |
| Yes | 70 | 51.1 |
| Not | 67 | 48.9 |

Most (121/88.3%) individuals were women; age varied from 23 to 59 years old with an average of 35.16 and standard deviation of 7.77; 70 (51.1%) had children.

Table 2 shows the distribution of the number of nurses (mothers or fathers) according to their experience with EBF, MBF and LAM.

**Table 2** - Distribution of the number of nurses with children according to their personal experience with exclusive and mixed breastfeeding, and with the lactational amenorrhea method, Strategy of Family Health- Fortaleza, CE, Brazil - 2008

| Variables (n=70)* | N | % |
|---|---|---|
| **Experience with breastfeeding** | 66 | 94.2 |
| **Exclusive (months) X = 4.31** | 61 | 92.4 |
| 1-2 | 7 | 11.4 |
| 3-4 | 27 | 44.3 |
| 5-6 | 27 | 44.3 |
| **Mixed** | 5 | 7.6 |
| **Reasons for mixed breastfeeding** | | |
| Mastitis | 3 | 60.0 |
| Breast reduction surgery | 1 | 20.0 |
| Inverted nipple | 1 | 20.0 |
| **No experience with breastfeeding** | 4 | 5.8 |
| **Reasons for not breastfeeding** | | |
| Adoption | 2 | 50.0 |
| Lack of family support | 1 | 25.0 |
| Hospitalization of child | 1 | 25.0 |
| **Experience with LAM** | 12 | 19.6 |

*Male nurses were included and their answers refer to their partners' experience with breastfeeding

Of the total (n=70) of nurses with children, 66 (94.2%) had experienced breastfeeding. Only four (5.8%) had not experienced breastfeeding and the reasons were: adoption, lack of family support, and hospitalization of the child. Of those who breastfed (n=66), 61 (92.4%) used EBF. Only five (7.6%) practiced MBF and the reasons were mastitis, breast reduction surgery and inverted nipple. Even though 61 (92.4%) practiced EBF, only 12 (19.6%) used LAM.

Time of EBF varied from one to six months with an average of 4.31. Going back to work was the main obstacle reported by nurses for why they suspended EBF before six months were completed, followed by hypogalactia.

Table 3 presents the relation of number of nurses (mothers and fathers) according to the personal experience with EBF, MBF and promoting LAM or not.

**Table 3** - Distribution of the number of nurses according to personal experience with EBF, MBF and its relation with LAM promotion, Family Health Strategy - Fortaleza, CE, Brazil - 2008

| Personal experience with breastfeeding (n=66) | Promotion of LAM (p=0.3245) | |
|---|---|---|
| | Yes | No |
| Exclusive (n=61) | 45 | 16 |
| Mixed (n=5) | 5 | --- |

Male nurses were included and their answers refer to their partners' experience with breastfeeding

Of the 61 interviewees who reported EBF, 45 (73.7%) reported they instruct clients in relation to LAM. The 16 nurses who reported not promoting LAM were from both genders. This study did not aim to analyze the variable 'professionals' gender' and its association with promotion of LAM, which is suggested for future studies.

The number of nurses with personal experience with LAM and its association with the promotion of the method is presented in Table 4.

**Table 4** - Distribution of the number of nurses with personal experience with LAM and its association with promoting the method or not, Family Health Strategy - Fortaleza, CE, Brazil - 2008

| Personal experience with LAM (n=61)* | Promotion of LAM (p=0.9999) | |
|---|---|---|
| | Yes | No |
| Yes (n=12) | 9 | 3 |
| No (n=49) | 36 | 13 |

*N=61 was considered, the number of EBF nurses , the condition necessary for practicing LAM

## DISCUSSION

The predominance of female participants was expected since the figure of the female nurse emerged in institutions of holy orders. Nursing became a field of knowledge and practice with female dominance associated with the role of wife-mother, who has always been a healer and holder of informal knowledge of health practices[7]. However, the inclusion of male professionals in the field has been observed. A study indicated that more men have registered in nursing programs. There are already institutions that prefer to hire male instead of female nurses due to worker rights such as maternity leave and reduced work hours during breastfeeding[8].

Discussing the feminization of the nursing profession is important in this context because breastfeeding and the use of LAM are intrinsically feminine experiences. Hence, it is expected that nurses who experience such practices hold beliefs and perceptions that influence their professional practice.

The age and the average age identified in this study depicts the reality observed in a study on the profile of professionals within the FHS in Ceará, Brazil. Similarity was identified in the state, where 53.5% of FHS nurses were under 30 years of age[9]. This result seems positive, given that younger professionals may have been educated based on more updated curricula, which are certainly better directed to coincide with FHS guidelines, which are to promote primary health care and universal vital measures such as EBF, one of the requirements for practicing LAM. Nurses as members of the FHS team have as one of their specific responsibilities to carry out activities in priority areas of intervention in primary care as defined by family planning and the Pact for Health and, therefore, the promotion of LAM, which is one of these activities. This pact is a set of SUS reforms agreed upon by the three levels of government (federal, state and municipality) in order to promote innovation in processes and management tools to achieve higher efficiency and quality of responses from SUS[10].

In relation to professional education, we asked whether nurses had received classes or guidance on LAM during their undergraduate program and almost all (118/86.1%) nurses answered yes. Only 12 (8.8%) stated they had not received instruction during their academic education and seven (5.1%) did not remember. Despite the relatively high percentage of nurses who reported that LAM was addressed during their academic education, the practice of these professionals indicated that such teaching-learning processes were not remarkable.

The balance observed in the average of nurses who had children and those who did not, 38.5 and 31.9 years old, respectively, is noteworthy. The nurses gave priority to career and financial stability to the detriment of motherhood. This is a current trend, especially among women with a higher level of education. The number of primiparous women older than 30 years of age doubled in the last 15 years and there was an increase of 80% of pregnant women older than 40 years of age. In 2000, about 10% of births occurred with women 35 years old or older, who are considered *old* primiparous mothers by the International Federation of Gynecology and Obstetrics[11]. This study verified that, even though maternity was experienced at a more *mature* age, substantial adoption of LAM was not verified, given that only 12 (19.6%) of the nurses who breastfeed reported using the method. In this context, we wonder whether postponing pregnancy would be unfavorable to the use of LAM. Does maternal maturity increase mistrust in the method? This is a question for future research.

Two nurses did not breastfeed because they were foster mothers. Lack of family support led to unsuccessful breastfeeding of one of the nurses and this is a frequent reason for interrupting EBF. Breastfeeding is influenced by information culturally transmitted from grandmother-mother- daughter and also information from books, magazines, relatives and health professionals[12].

The influence of family members, especially grandmothers and husbands, is crucial for continuing breastfeeding or avoiding early weaning, as judgments capable of provoking the woman and also feelings of inability or even conflicts in family relationships are expressed. The father's positive attitude seems to have a more important effect on the women's motivation and ability to breastfeed[13].

Hospitalization of the child was the reason reported by one nurse for not breastfeeding. The child was hospitalized for three consecutive months and as a consequence the mother's milk production decreased. Newborns who need intensive neonatal care have difficulty in efficaciously developing breastfeeding and LAM is counter-indicated[1]. It is worth noting that in addition to the child's hospitalization, the type of hospital (whether it is child-friendly or not), rooming in, and type of childbirth influence the maintenance of EBF in a study carried out in the Women's Health Care Center in São Paulo, SP, Brazil[14].

The high level of education of the study's participants and their profession may have influenced the fact that 66 (94.2%) of those who had children breastfed, and 61 (92.4%) of those who breastfed, exclusively breastfed for a period of time. However, as important as breastfeeding is exclusive breastfeeding, at least up to the child's six month of age, as recommended by WHO. This fact is corroborated by a study[15] that identified a higher percentage of children who breastfed for more than four months among working mothers with a high level of education.

The causes reported by five (7.6%) of the nurses who had children and breastfed but did not exclusively breastfeed were correction of macromastia, inverted nipple, and mastitis.

Macromastia or breast enlargement is a condition that leads to physical symptoms such as pain, functional and psychological limitations. Treatment consists of surgically reducing breasts. In general, reduction mammoplasty does not impede breastfeeding provided that the innervations of nipples, ducts, and lactiferous sinuses are preserved. However, removal of part of the breast tissue and internal tissue scarring, with fibrosis, may impede milk from being removed from ducts. In clinical practice, many women with breast reduction do not succeed in breastfeeding[15]. Yet, breastfeeding should be encouraged because some women who undergo surgery are able to breastfeed.

The nipple influences the efficacy of breastfeeding depending on its anatomical form. Protruding or normal nipples are significant and easily project after stimulation, which is ideal for the child to latch on. Inverted nipples have the opposite direction of normal ones and may hinder

breastfeeding, though they do not exclude it, considering that stimulation by the child's suction can make it protruding or semi-protruding. Women with inverted or flat nipples should intervene right after the child's birth to ensure successful breastfeeding[16].

Mastitis is an inflammatory process of one or more segments of the breast caused by increased intraductal pressure by milk stasis, which may or may not progress to a bacterial infection, the main entrance of which is a cleft[16]. Any event that causes the milk to stagnate predisposes the mother to mastitis, including sudden decrease in breastfeeding, the child's sleeping long, use of pacifiers or bottles, not completely emptying the breasts, infant with weak suckling, excessive production of milk, separation of mother and child, and abrupt weaning[17]. The appropriate treatment for mastitis consists of emptying the breast through breastfeeding and expressing excess milk after breastfeeding, if necessary[17].

Based on the previous discussion, we infer that the reasons the participants interrupted EBF could be overcome. Hence, it is the role of those who promote LAM to competently handle such occurrences in order to avoid losing opportunities for EBF and LAM. Despite the importance of breastfeeding for the child, mother, family and society, breastfeeding rates in Brazil, especially EBF, are low; 2.17 months is the average time of EBF[18].

In a study conducted with FHS professionals in Montes Claros, MG, Brazil that addressed knowledge and promotion of breastfeeding, 41 professionals with a bachelor's degree and 153 with high school education were interviewed. More than half of the participants experienced early interruption of EBF[19].

The reasons reported by the mothers for weaning or introducing other foods in the child's diet included the mother's organic deficiencies, problems with the child, and the mother's additional responsibilities[20]. The latter is a factor associated with the inclusion of women in the job market and the need for them to become a provider for the family, according to social and economic determinations. A study addressing the efficacy of LAM among working women did not observe pregnancy among those using the method before going back to work, however, three pregnancies were identified when women resumed work after four, five and six months postpartum. Hence, authors consider that resuming work may be a factor that compromises the practice of LAM and emphasize the importance of coaching women in relation to this matter[21].

The professional activity of mothers is a challenge that contributes to lower rates of EBF after the child's fourth month because going back to work implies a reduced number of feedings, hindering the maintenance of EBF for longer periods[22]. From this perspective, health professionals can disseminate the Decree No. 7.052 of December 23rd 2009, which regulates law No. 11.770 of September 9th 2008 that created the Corporate Citizen Program aiming to extend maternity leave for 60 days with the corresponding salary[23]. Disseminating this legal provision is likely to encourage EBF. It is important to stress that not only does mother's decision as to whether to breastfeed suffer interference from working outside home, but that the decision to breastfeed is also influenced by information received before, during and after pregnancy from the most diverse sources, whether these are relatives, professionals, advertisements or readings[24]. Therefore, appropriate information concerning breastfeeding may awaken the desire to breastfeed and consolidate this feeling in women even in the pre-pregnancy period, strengthening the health professional's role as an information provider.

Diminished milk production was also reported by nurses as one of the reasons for interrupting EBF before the child's six month of age. It is important to emphasize that milk production is directly influenced by nipple sucking. Going back to work automatically reduces the number of feedings, which may be associated with diminished milk production.

In relation to the use of LAM by the participants of this study, 12 (19.6%) reported the adoption of the method to avoid pregnancy considering its practicality and benefits, while the main reason reported by those who did not adopt it was lack of trust in the method. This result may be understood as negative from the point of view of LAM promotion since if these individuals did not trust the method for themselves, it is expected they negatively influence their clientele or simply do not promote the method. However, of those who (n=61) exclusively breastfed their children, 45 (73.7%) reported they inform their clients of the method even when not having personally used the method themselves, while 16 (26.3%) never instruct their clientele. The five nurses who reported MBF reported they instruct their clients in relation to LAM. Nevertheless, the Fisher's exact test did not show statistically significant association between personal experience and exclusively and mixed breastfeeding and LAM promotion (p=0.3245).

A small number of nurses had personal experience with LAM. This reduced number may have influenced the analysis of association of this practice with its promotion. The behavior of this group of 12 nurses who used LAM, compared to the group of professionals who practiced EBF, had no statistically significant difference with relation to LAM promotion, when analyzed by Fisher's exact test (p=0.9999).

## CONCLUSION

The studied population is predominantly composed of women aged on average 35.16 years old; most (70/51.1%) had children. The personal experiences of the nursing professionals with breastfeeding and EBF were relatively frequent given the number of nurses with children: 61 (92.4%) practiced EBF for an average of 4.31 months. Resuming work was the main obstacle to EBF practice for a longer period.

Even though the experience of professionals with EBF was high among the studied groups, only 12 (19.6%) used LAM as a contraceptive method. Lack of trust in the efficacy of LAM was identified as the reason for not using it, hence, for not indicating the method to FHS users. The need to provide knowledge and demystify LAM, firstly among the professionals themselves, is acknowledged. Fisher's exact test did not indicate that there was statistically significant differences in the comparison among the group who reported personal experience with LAM and the groups of professionals who had use EBF and MBF, in relation to LAM promotion (p=0.3245 and p=0.9999, respectively).

It is important to report that other Latin American studies addressing the theme were not cited in this manuscript. In a search carried out in the Latin American and Caribbean Center on Health Sciences (LILACS) using the descriptors *family planning* and *Breast Feeding* in association, a total of 27 studies were found. According to their titles, eight were related to LAM and fertility control. When the search was refined and the descriptors *rev. esc. enferm. usp* and *family planning* were associated, seven studies were identified but none addressed LAM. When the descriptors *rev. esc. enferm. usp.* and *breast-feeding* were associated, ten studies were identified, though none addressed the object of this study and contraception.

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## ANNEX: Data collection instrument

**Personal data**

1. Gender: 1( ) Male 2( ) Female

2. Age: _____

3. Do you have children? 1( ) Yes 2( ) No. **If you do not have children skip to "professional data"**

4. If affirmative, have you ever breastfed? (If man, have your wife breastfed?) 1( ) Yes 2( ) No

5. Exclusive breastfeeding was kept for a while? 1( ) Yes 2( ) No

6. If affirmative, for how long (in months)? _____

7. In case you have exclusively breastfed for less than six months, explain your reasons

1( ) Resume working 2( ) Decreased milk production 3( ) Weak milk

4 ( ) Others. Specify:_____

8. In case you have not exclusively breastfed, explain what hindered it

_____

9. Have you adopted breastfeeding as a method of family planning? 1( ) Yes 2( ) No

10.Why?_____

_____

**Professional Data**

11. Have you received instruction on LAM in the undergraduate program?

1( ) Yes 2( ) No 3( ) Do not remember

12. Do you instruct your clients about LAM?

1( ) Always 2( ) Sometimes 3( ) Never

Why? _____

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