

EXCLUSIVE BREASTFEEDING PRACTICES AMONG HEALTH PROFESSIONALS OF A BABY FRIENDLY ACCREDITED HOSPITAL

Rayanne Sousa Melo¹, Ana Cristina Pereira de Jesus Costa², Leonardo Hunaldo dos Santos³, Paula Chuproski Saldan⁴, Marcelino Santos Neto⁵, Floriacy Stabnow Santos⁶

ABSTRACT: The present study aimed to identify the prevalence of exclusive breastfeeding among health professionals of a baby friendly accredited hospital and the risk variables for non-adherence to exclusive breastfeeding. Cross-sectional study carried out between January and June 2014, with 53 health professionals who had babies at the time they were working at a hospital in the state of Maranhão. Data was collected with the use of a structured questionnaire. Of these, 15 (2.83%) sustained exclusive breastfeeding for the first six months of their infants' lives. Breastfeeding was facilitated by the following factors: rooming-in facilities (n = 45/84.9%), support to breastfeeding provided by health professionals, friends or relatives (n = 43/81.1%). In turn, breastfeeding was complicated by the following factors: nipple trauma (n = 22/41.5%), pain (n = 20/37.7%), mastitis (n = 11/20.7%), formula milk, babies were given water (n = six /11.3%) and teas (n = four/7.5%). The fact that the lactating women performed their activities at a Baby Friendly Accredited Hospital did not have a positive influence on the duration of exclusive breastfeeding.

DESCRIPTORS: Breastfeeding; prevalence; Health staff; Cross-sectional studies; Hospitals.

PRÁTICAS DE ALEITAMENTO MATERNO EXCLUSIVO ENTRE PROFISSIONAIS DE SAÚDE DE UM HOSPITAL AMIGO DA CRIANÇA

RESUMO: O objetivo deste estudo foi identificar a prevalência de aleitamento materno exclusivo entre profissionais de saúde em hospital credenciado como Amigo da Criança e as variáveis de risco para a não adesão ao aleitamento materno exclusivo. Estudo transversal realizado entre janeiro e junho de 2014, com 53 profissionais da saúde que tiveram filhos enquanto trabalhavam em hospital no interior do Maranhão. Dados coletados de instrumento estruturado. Praticaram aleitamento materno exclusivo, até o sexto mês, 15 (28,3%) profissionais. Facilitou o aleitamento, o alojamento conjunto (n=45/ 84,9%), apoio para amamentar por profissionais de saúde, amigos ou familiares (n=43/ 81,1%). Dificultaram o aleitamento materno fissuras de mamilo (n=22/ 41,5%), dor (n=20/ 37,7%), mastite (n=11/ 20,7%), ingestão de leites industrializados (n=nove/ 17%), água (n=seis/ 11,3%) e chás (n=quatro/ 7,5%). O fato de serem profissionais trabalhadoras em hospital "Amigo da Criança" não influenciou de forma positiva no tempo de aleitamento materno exclusivo.

DESCRIPTORIOS: Aleitamento materno; Prevalência; Pessoal de saúde; Estudos transversais; Hospitais.

PRÁCTICAS DE LACTANCIA MATERNA EXCLUSIVA ENTRE PROFESIONALES DE SALUD EN HOSPITAL AMIGO DEL NIÑO

RESUMEN: El objetivo del estudio fue identificar la prevalencia de lactancia materna exclusiva entre profesionales de salud en hospital caracterizado como Amigo del Niño, y variables de riesgo de no adhesión a la lactancia materna exclusiva. Estudio transversal realizado entre enero y junio de 2014, con 53 profesionales de salud que tuvieron hijos mientras trabajaban en hospital del interior de Maranhão. Datos recolectados mediante instrumento estructurado. Practicaron lactancia materna exclusiva, hasta el sexto mes, 15 (28,3%) profesionales. Facilitaron la lactancia el alojamiento conjunto (n=45/ 84,9%), apoyo para amamentar de profesionales de salud, amigos o familiares (n=43/ 81,1%). Dificultaron la lactancia materna fisuras del pezón (n=22/ 41,5%), dolor (n=20/ 37,7%), mastitis (n=11/ 20,7%), ingesta de leches industrializadas (n=9/17%), agua (n=6/ 11,3%) y tés (n=4/ 7,5%). El hecho de tratarse de profesionales trabajadoras en hospital "Amigo del Niño" no influyó positivamente en el tiempo de lactancia materna exclusiva.

DESCRIPTORIOS: Lactancia Materna; Prevalencia; Personal de Salud; Estudios Transversales; Hospitales.

¹Nurse. Resident of the Family and Community Health Residency Program at Universidade Federal do Tocantins. Palmas, TO, Brazil.

²Nurse. PhD in Nursing. Professor of Nursing at Universidade Federal do Maranhão. Imperatriz, MA, Brazil.

³Biologist. PhD in Genetic Improvement. Professor at Universidade Federal do Maranhão. Imperatriz, MA, Brazil.

⁴Nutritionist. PhD in Sciences. Professor at Universidade Estadual do Centro-Oeste. Guarapuava, PR, Brazil.

⁵Pharmacist Biochemist. PhD in Sciences. Professor of Nursing at Universidade Federal do Maranhão. Imperatriz, MA, Brazil.

⁶Nurse. PhD in Sciences. Professor of Nursing at Universidade Federal do Maranhão. Imperatriz, MA, Brazil.

Corresponding author:

Floriacy Stabnow Santos
Universidade Federal do Maranhão
Av. da Universidade, S/N - 65915-240 – Imperatriz, MA, Brasil
Email: floriacy@gmail.com

Received: 06/02/2017

Finalized: 04/10/2017

● INTRODUCTION

Breastfeeding (BF) is one of the most effective ways for reducing the infant morbidity and mortality and should not be replaced by other feeding practices, since breast milk is the optimal nutrient mix for infants, and is the safest and cheapest way to ensure good health for the babies⁽¹⁻³⁾.

The World Health Organization (WHO) recommends exclusive breastfeeding (EBF) for the first six months of the infant's life and introduction of nutritionally-adequate and safe complementary foods at 6 months together with continued breastfeeding up to 2 years or beyond⁽⁴⁾. EBF for 6 months has many benefits for the infant and the mother^(1,3).

Breastfeeding should be addressed and discussed during the first prenatal consultation by health professionals. This is the ideal time for sensitizing the mother about the importance of breastfeeding^(3,5). Despite the wide dissemination of scientific knowledge about the importance of EBF many mothers do not adhere to this practice or only partially adhere to EBF. Even health professionals may find it difficult to exclusively breastfeed their babies for 6 months^(1,6).

Given the benefits of EB for infants, mothers, families and society and the poor adherence of mothers to EBF, the United Nations Children's Fund (UNICEF), together with the WHO, launched in 1991- 19 92 the Baby Friendly Hospital Initiative (BFHI), which was incorporated by the Ministry of health as a priority action in 1992. This initiative aims to protect, promote and support optimal feeding of infants and young children, in order to ensure maintenance of the behaviors and practices necessary to the promotion of a healthier and safer life for children in their first few months of life by mothers, families and health professionals⁽⁷⁾.

Health professionals, especially those who are part of a Baby Friendly Hospital Initiative (BFHI) are trained on the proper management of BF, which, among other things, recommending that infants are exclusively breastfed for the first six months of life. It should be stressed that for obtaining accreditation as Baby Friendly Hospitals, health institutions must comply with the Ten Steps to Successful Breastfeeding, Mother Friendly Care, and a series of other requirements targeted to the promotion of adequate health care of women and children. Compliance with these requirements will allow that health professionals trained on the clinical management of BF adhere to this practice during the first six months of life of their babies⁽⁸⁾.

Given the importance of EBF, the relevance of this initiative that encourages breastfeeding, and the responsibility of institutions accredited as BFHI, it is essential to ensure that professionals who perform their activities in these institutions and who were trained on the management of BF also adhere to this practice when they feed their own children.

Therefore, this study aimed to identify the prevalence of EBF among professionals in a Baby Friendly Accredited Hospital, as well as the risk variables for non-adherence to EBF, factors that facilitate and factors that make breastfeeding difficult.

● METHOD

This is a cross-sectional quantitative study that measured⁽⁹⁾ the prevalence of EB among health professionals, conducted at Hospital Regional Materno Infantil (HRMI) in the state of Maranhão, in Brazil's Northeastern region, from January to June 2014. The referred institution is the only public maternity hospital in the southwest of Maranhão accredited as a Baby Friendly Hospital (BFAH) since 2001. In order to maintain this accreditation, the hospital routinely trains all its employees on BF management⁽¹⁰⁾.

The study participants were health professionals who had their babies and enjoyed maternity leave in the period of January 2007- July 2013 when they integrated HRMI's staff. Health professionals who had not given birth when they were part of the hospital's staff were excluded from the study. Based on information collected at HRMI's Personnel Department, we found that 69 employees met these requirements. Of these, 53 agreed to participate in the survey and composed the study sample. The other 16 employees refused to participate.

The data collection instrument was an adapted structured questionnaire ⁽¹¹⁾, which was completed in one meeting by two researchers who interviewed the employees in their workplace. The variables investigated were occupation, educational level, age, marital status and number of children; maternal and newborn-related difficulties for breastfeeding; factors that facilitated breastfeeding and factors that made it difficult. The prevalence of exclusive breastfeeding was calculated by dividing the number of children who were exclusively breastfed for the first six months of their lives by the number of participating women.

Data were entered and analyzed with the aid of Microsoft Excel [®] version 2016 through the use of descriptive statistics. Absolute and relative frequencies, as well as mean and standard deviation (SD) were calculated. Nonparametric chi-square tests of association were performed to verify the association between demographic variables and EB, with the purpose of testing the correlation between categorical variables ⁽¹²⁾. Odds ratio (OR) was also calculated, considering a 95% confidence interval. All data were tabulated in Excel 2016 spreadsheet and the tests were performed with SAS software ⁽¹³⁾.

The study was approved by the Research Ethics Committee of Universidade Federal do Maranhão (Statement 447.459/2013).

● RESULT

Of the 53 women who participated in the survey, 20 (37.8%) were nursing technicians. Age ranged from 20 to 40 years, with an average of 30.3 years (SD = 4.1). Thirty women had higher education (n = 30/56.5%) and 33 (62.3%) were married. The number of children ranged from one to three, with an average of 1.2 children (SD = 0.49). Thirty-four women had their children in the hospital where they performed their professional activities (n = 34 / 64.1%), and the health institution was a Baby Friendly Accredited Hospital (Table 1).

Regarding the prevalence of BF, it was found that 100% of the mothers breastfed their children, but only 15 women (28.3%) exclusively breastfed (EBF) their children during the first six months of life (Table 1).

Table 1 – Characterization of the women who participated in the study. Imperatriz, MA, Brazil, 2014 (continues)

Characteristics	n (%)
Profession	
Nurse	12 (22.6)
Physician	6 (11.3)
Nursing technician	20 (37.7)
Support services	10 (18.9)
Social worker	1 (1.9)
Nutritionist	4 (7.6)
Marital status	
Single	11 (20.7)
Married	33 (62.3)
Stable relationship	9 (17)
Education	
Primary education	1 (1.9)
Secondary education	22 (41.5)
Higher education	30 (56.6)
Age, years	
20-30	26 (49.1)
31-40	27 (50.9)

Children	
1	44 (83.1)
2	7 (13.2)
3	2 (3.7)
Exclusive breastfeeding	
Yes	15 (28.3)
No	38 (71.7)
Total	53 (100)

No association was found between EBF and the maternal variables assessed (Table 2).

Table 2 – Sociodemographic characteristics related to exclusive breastfeeding. Imperatriz, MA, Brazil, 2014

Variables	Category	n/total	%	P value	OR (CI95%)	
Profession	Nurse	4/12	33.3	0.99		-
	Physician	2/06	33.3			
	Nursing technician	6/20	30			
	Support services	3/10	30			
	Social worker	0*/1	0			
	Nutritionist	0*/4	0			
Marital status	Single	4/11	36.4	0.99	2.00	(0.27-14.7)
	Married	9/33	27.3		1.31	(0.23-7.5)
	Stable relationship	2/09	22.2		Ref	1
Education	Primary education	0*/1	0	0.92		-
	Secondary education	8/22	36.4			
	Higher education	7/30	23.3			
Age (year)	20-30	6/26	23,1	0.88	Ref	1
	31-40	9/27	33.3		1.67	(0.18-2.02)

*Zero values do not allow calculating odds ratio. OR: odds ratio; CI95%: confidence interval of 95%.

Regarding the risk variables for non-adherence to EBF, some demotivating factors for breastfeeding problems associated with maternal and newborn problems were observed.

Nipple fissures (n = 22/ 41.5%), pain when breastfeeding (n = 20 / 37.7%), insufficient milk (n = 15 / 28.3%), mastitis / 20.7%), flat or inverted nipples (n = six / 11.3%) and breast engorgement (n = A / 1.9%) were maternal-related problems. In some cases, one woman had more than one problem related to breastfeeding (Table 3). As for the infants, they faced the following difficulties: eight (30.8%) infants had reflux, 21 (39.6%) pacifier sucking, 36 (67.9%) drank water or other liquids from a bottle with an artificial teat (Table 3).

Table 3 – Maternal and newborn risk variables for non-adherence to exclusive breastfeeding. Imperatriz, MA, Brazil, 2014 (continues)

Variables	n (%)
Maternal	
Nipple crack	22 (41.5)
Pain	20 (37.7)

Insufficient milk	15 (28.3)
Mastitis	11 (20.7)
Flat or inverted nipples	6 (11.3)
Breast engorgement	1 (1.9)
Newborn	
Latch-on problems	6 (23.1)
Babies do not suck at all or do not suck well enough	2 (7.7)
Low weight	2 (7.7)
Hypoglycemia	2 (7.7)
Milk intolerance	3 (11.5)
Reflux	8 (30.8)
Others	3 (11.5)
Pacifier use	
Yes	21 (39.6)
No	32 (60.4)
Bottle use	
Yes	36 (67.9)
No	17 (32.1)
Total	53 (100)

Four (7.5%) employees returned to work less than four months after delivery, and most of them (n = 49 / 92.4%) returned to work four months after delivery, despite the fact that they were employed at a state hospital.

Some factors were considered as EBF facilitators. The data collected showed that 41 (77.4%) infants were breastfed in their first hour of life and 45 (84.9%) stayed with their mothers in the hospital room/apartment after birth; 43 (81.1%) women received support from friends, relatives or health professionals during breastfeeding (Table 4). Some factors made BF difficult, such as nine (17%) babies fed with formula milk immediately after birth; six (11.3%) who were given water and four (7.5%) who were given teas (Table 4).

Table 4 – Factors that facilitated and factors that complicated exclusive breastfeeding among professionals of a hospital. Imperatriz, MA, Brazil, 2014 (continues)

Factors that facilitated breastfeeding	n (%)
Infants were breastfed in the first hour after birth	
Yes	41 (77.4)
No	12 (22.6)
Babies and mothers in a rooming-in facility after birth	
Yes	45 (84.9)
No	8 (15.1)
Mothers received breastfeeding support	
Yes	43 (81.1)
No	9 (17)
Sometimes	1 (1.9)
Support provided by	
Family members	44 (54.3)
Friends	17 (21)
Health professionals	20 (24.7)

Factors that complicated breastfeeding	n (%)
Infants fed with formula milk	
Yes	9 (17)
No	44 (83)
Infants were given water	
Yes	6 (11.3)
No	47 (88.7)
Infants were given tea	
Yes	4 (7.5)
No	48 (90.6)
I don't remember	1 (1.9)
Total	53 (100)

● DISCUSSION

The present study assessed EBF practice among health professionals who worked in the only public maternity that was a Baby Friendly Accredited Hospital in the region, conducting actions of support and promotion of BF both among the internal and external clientele. The health professionals are continuously trained on breastfeeding management in order to be permanently updated on this topic. The external clientele, mostly composed of mothers, receives information, encouragement and clarification on the topic at various moment, such as prenatal, delivery and postpartum.

Considering the professionals who participated in the study, similar results were obtained in studies conducted in the city of Rio de Janeiro (RJ), in a public maternity⁽¹¹⁾, and in Recife (PE), with a Family Health Strategy team⁽¹⁴⁾, where the professionals had sociodemographic profiles similar to those who participated in the present study.

Regarding the exclusive breastfeeding practice, 28.3% of the participants exclusively breastfed their children for the first six months after delivery. A study conducted in Londrina⁽¹⁵⁾ showed that the prevalence of exclusive breastfeeding in children aged 0-6 months was 33.8%, and month-by-month results found the highest prevalence rates in the first four months, respectively, 62.5% and 47.4%. However, at five months, only 19.3% of the infants were exclusively breastfed and at six months, only 7.8%. In the present study, the practice of EBF was far from observing the recommendations advocated by the WHO and the Ministry of Health regarding the importance of EBF for the first six months of an infant's life.

In another study with women of various professions, the median duration of EBF was 90 days (three months)⁽¹⁷⁾. Therefore, being a health professional of the staff of a Baby Friendly Accredited Hospital did not contribute to ensure EBF for the first six months of the infants' lives, indicating that factors other than knowledge of the BF technique are crucial to successful EBF.

Some situations may pose risks to exclusive breastfeeding, such as cracked nipples, pain, breast engorgement and mastitis. A cross-sectional study carried out in Recife showed that 32.1% of women reported having some difficulty breastfeeding⁽¹⁴⁾. Another quantitative study conducted in Rio de Janeiro obtained results similar to those of the present study: 34.2% of the women who breastfed their infants had nipple cracks, 32.8% had pain in their nipple, 11.5% had breast engorgement and 9.8% had mastitis⁽¹¹⁾. Evidently, risk situations, such as those identified in this study, especially nipple cracks and pain, may complicate the practice of exclusive breastfeeding.

In the present study a series of problems related to the mothers, which directly impact the act and decision of breastfeeding were identified in this study. All women should receive guidance on the importance of EBF during the prenatal stage, even health professionals. Some problems faced by nursing mothers during BF, if not identified and treated early, may result in discontinuation of

breastfeeding⁽¹⁴⁾.

Health professionals have an important role in the prevention and management of these problems⁽³⁾. But what if such professionals also face these problems while breastfeeding their own children? It is assumed that they are trained in the management of BF and are capable of coping with such issues without discontinuing EBF until the sixth month of life of their infants.

However, this situation deserves consideration, as although these women are health professionals in a Baby Friendly Accredited Hospital, they are also mothers, and may face situations experienced by women who are not health professionals during breastfeeding. Other factors, in addition to techniques for BF management must be available to ensure the success of breastfeeding, such as a network of support to these women, the desire to breastfeed, the health conditions of the child and the mother, and the time spent by the mother with her baby.

The present study showed that 41 (77.4%) children were breastfed in the first hour of life. In another study⁽¹⁸⁾ the prevalence of children breastfed in the first hour of life was 81.1%, indicating that the percentages of both studies are higher than the national average, if compared to the II Research of Prevalence of Breastfeeding in Brazilian Capitals and the Federal District, which found that 67.7% of the children that composed the sample were breastfed in the first hour of life, and in São Luís (MA), the percentage was 83.5%⁽¹⁶⁾.

The attitude of breastfeeding the child in the first hour of life is of utmost importance, as it corresponds to the fourth step recommended in the Ten Steps to Successful Breastfeeding of the BFHI⁽¹⁹⁾. However, it should be stressed that 36% of the women had their children in hospitals not accredited as BFHI.

The first few days after birth are critical to successful breastfeeding⁽³⁾. In addition to providing the opportunity for the mothers to breastfeed their children in the first hour of life, it is also important to encourage the mothers to practice rooming-in, which was established as the seventh step to successful breastfeeding, according to which the mothers and infants remain together 24 hours per day⁽¹⁹⁾. A study found that 62.9% of the mothers remained beside their children from birth until hospital discharge⁽¹⁴⁾, but in the present study, 84.9% used rooming-in facility from birth, indicating a favorable situation that facilitates EBF.

Despite the importance of EBF, many people are still unaware of the benefits of this practice. And it is because of lack of information, because they feel insecure and believe their milk is weak and cannot meet the nutritional needs of their children that many mothers introduce other foods earlier than advised⁽⁷⁾. A study showed that 18.9% of the children that composed the study sample were given formula milk, 70% were given water and 48.9% were given teas, explaining that such feeding practices are inappropriate for the infants⁽¹⁸⁾.

According to the II Research of Breastfeeding Predominance in Brazilian Capitals and the Federal District⁽¹⁶⁾, the mothers introduce water, formula milk and tea to their babies very early, in the first month of life. In the Northeastern Region, 19.1% of the children were given water very early, and in the Southern Region, this rate is much lower (4.6%). Regarding the use of formula milk, 18% of the children were fed these milk-based formulas in the first month of life, with a growing trend in the subsequent age ranges, reaching 48.8% between 120 and 180 days. The Northeastern and Southeastern regions led the introduction of milk-based formulas in the first month of life, with one-fifth of the infants fed these formulas in the first month of life.

The present study showed that this percentage is lower (17%) compared to these findings, which is positive. Breastfeeding is a natural process, and many women face some problems during this process for some of the following reasons: latch-on problems, lack of time or insecurity, and because they believe their milk is weak and cannot adequately feed their babies⁽¹⁴⁾.

Health professionals play an important role in appropriate breastfeeding practices, as they are in direct contact with pregnant women during prenatal care, providing guidance and monitoring these women. Thus, successful breastfeeding is directly influenced by these professionals⁽¹¹⁾.

It should be noted that in addition to the influence of health professionals, these mothers are also influenced by their culture, family, community and friends. Therefore, health professionals must be

careful when they explain the benefits of EBF to these women. Even mothers who integrate the health staff of hospitals are subject to the same family, social and emotional pressures. Thus, professional advice that reinforces self-esteem and confidence in their ability to breastfeed is necessary⁽¹⁴⁾.

Despite all the reported difficulties that may impair breastfeeding, 67.9% of the participants did not have trouble breastfeeding, indicating that they were well informed on breastfeeding, and that the greater their knowledge on the subject, the lower the likelihood that these mothers will experience difficulty in breastfeeding, because they can apply theoretical knowledge to practice.

A study conducted in a maternity hospital accredited as BFHI, in Rio de Janeiro found that the greatest difficulty in breastfeeding was related to latch-on problems (26.3%)⁽¹¹⁾, corroborating the present study. However, the health professionals also mentioned reflux as another factor that complicates EBF⁽¹¹⁾.

Regarding the use of pacifiers and artificial teats of bottles, it is reported in 38% and 64,7% of the cases, respectively⁽¹⁴⁾. Data from the II Research of Breastfeeding Predominance in Brazilian Capitals and in the Federal District⁽¹⁶⁾ revealed that bottle (58.4%) and pacifier (42.6%) use was frequent among the children who composed the samples of the studies.

Bottles and artificial teats are considered a source of contamination, increasing the risk of infant mortality and morbidity. Moreover, nipple confusion, which occurs when babies cannot establish the necessary oral configuration, latching technique and sucking pattern to extract milk from the breast after exposure to artificial teats result in the administration of infant formulas that can be too dilute or too concentrated, interfering with breastfeeding and leading to early weaning⁽⁷⁾.

Return to work after the end of maternity leave may also pose some difficulties to EBF. A study found that 94.1% of the mothers returned to work four months after giving birth or later⁽¹⁴⁾. The fact that the women returned to work four months after delivery may have complicated EBF for six months. Thus, given the importance of EBF, it would not be beneficial for women to return to work after 120 days.

In order to extend breastfeeding to the first six months of the infants' lives, the Federal Government established the Corporate Citizen Program, through Law 11.770, of September 9, 2008. According to this law, companies that adhere to the program that increases in 60 days the maternity leave of employees benefit from tax incentives. Thus, the 120-day maternity leave period can be extended to 180 days, as long as it is requested by the employee until one month after delivery. This allows nursing women to breastfeed their infants up to the sixth month of life, as recommended by the WHO and the Brazilian Ministry of Health⁽²⁰⁾.

One limitation of this study concerns the data collection period which comprised a maximum period of seven years after the professionals gave birth, as it may result in a memory bias.

● CONCLUSION

Analysis of the prevalence of the use of exclusive breastfeeding by the participants showed that being health professionals who performed their activities in a Baby Friendly Accredited Hospital did not have a positive effect on adherence to the recommended period of exclusive breastfeeding.

Some factors facilitated exclusive breastfeeding, such as the fact that the women worked in a Baby Friendly Accredited Hospital, which contributes to their knowledge on breastfeeding management and the importance of this practice. All of them breastfed their children.

One fact that complicated adherence to exclusive breastfeeding up to six months was the early introduction of liquids and formula milk. Thus, it is necessary to further investigate whether such decision was influenced by family members or friends, or the reasons that led these women to make such decision, since they were aware of the benefits of exclusive breastfeeding for the first six months of an infant's life.

There have been variables of risk for non-adherence to exclusive breastfeeding such as the presence of nipple cracks, pain while breastfeeding, mastitis, problems associated to the infants, such as reflux (a physiological condition) and the use of pacifiers and artificial teats for the intake of water and other liquids.

The findings of the present study contribute to demonstrate the relevance of measuring adherence to EBF among health professionals, in order to implement actions targeted to the change of habits, particularly in health institutions, and ensure that this beneficial practice is adopted. This may favor the teaching and research on the topic, since in Brazil there are several studies on the important role of EBF on the promotion and maintenance of infant health.

● ACKNOWLEDGMENTS

The authors thank the Foundation for Research and Scientific Development of Maranhão – FAPEMA for their support.

● REFERENCES

1. Victora CG, Bahl R, Barros AJD, França GVA, Horton S, Krasevec J, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *The Lancet*. [Internet] 2016;387(10017) [acesso em 28 jun 2016]. Disponível: [http://dx.doi.org/10.1016/S0140-6736\(15\)01024-7](http://dx.doi.org/10.1016/S0140-6736(15)01024-7).
2. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Manual instrutivo das ações de alimentação e nutrição na Rede Cegonha. Brasília (DF): Ministério da Saúde; 2013.
3. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Dez passos para uma alimentação saudável. Guia alimentar para crianças menores de dois anos. Um guia para o profissional de saúde da atenção básica. 2ª ed. Brasília (DF): Ministério da Saúde; 2013.
4. Venancio SI, Saldiva SRDM, Monteiro CA. Secular trends in breastfeeding in Brazil. *Rev. Saúde Pública*. [Internet] 2013;47(6) [acesso em 04 jul 2015]. Disponível: <http://dx.doi.org/10.1590/S0034-8910.2013047004676>.
5. da Silva VF, Pessoa CGO. Fatores determinantes do aleitamento materno exclusivo em uma cidade de minas gerais. *Revista Enfermagem Integrada*. [Internet] 2012;5(1) [acesso em 13 mar 2014]. Disponível: <https://www.unilestemg.br/enfermagemintegrada/artigo/v5/01-fatores-determinantes-do-aleitamento-materno-exclusivo-em-uma-cidade-de-minas-gerais.pdf>.
6. Gomes ARC. Práticas de aleitamento materno em crianças menores de um ano em municípios de Minas Gerais [dissertação]. Belo Horizonte (MG): Universidade Federal de Minas Gerais; 2011.
7. Lopes SS, Laignier MR, Primo CC, Leite FM. Iniciativa Hospital Amigo da Criança: avaliação dos Dez Passos para o Sucesso do Aleitamento Materno. *Rev. paul. pediatri*. [Internet] 2013;31(4) [acesso em 13 mar 2014]. Disponível: <http://dx.doi.org/10.1590/S0103-05822013000400011>.
8. Ministério da Saúde (BR). Relação dos Hospitais Amigos da Criança - Brasil - 2014. Brasília (DF): Ministério da Saúde; 2015.
9. Lakatos EM, Marconi MA. Metodologia científica. 6ª ed. Atlas; 2011.
10. Fundo das Nações Unidas para a Infância. Iniciativa Hospital Amigo da Criança: revista, atualizada e ampliada para o cuidado integrado: modulo 4: autoavaliação e monitoramento do hospital/ Fundo das Nações Unidas para a Infância, Organização Mundial da Saúde. Brasília: Editora do Ministério da Saúde; 2010.
11. Guimarães LM, da Silva LR, Maques LF. Management of breastfeeding for mothers nursing professionals, which work in a maternity. *J Nurs UFPE on line*. [Internet] 2012;6(9) [acesso em 20 jun 2013]. Disponível: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/2669/pdf_1420.
12. Callegari-Jacques SM. Bioestatística. Princípios e aplicações. Porto Alegre: Artmed; 2003.
13. Statistical Analysis System (SAS). SAS software: user's guide. Version 8.2. Cary; 2000.
14. Caminha MFC, Serva VB, dos Anjos MMR, Brito RBS, Lins MM, Batista Filho M. Aleitamento materno exclusivo entre profissionais de um Programa Saúde da Família. *Ciênc. saúde coletiva*. [Internet] 2011;16(4) [acesso em 13 jun 2013]. Disponível: <http://dx.doi.org/10.1590/S1413-81232011000400023>.

15. de Souza SNDH, Migoto MT, Rosseto EG, de Mello DF. Prevalência de aleitamento materno e fatores associados no município de Londrina-PR. *Acta paul. enferm.* [Internet] 2012;25(1) [acesso em 12 fev 2014]. Disponível: <http://dx.doi.org/10.1590/S0103-21002012000100006>.
16. Ministério da Saúde (BR). II Pesquisa de Prevalência de Aleitamento Materno nas Capitais Brasileiras e Distrito Federal. Brasília (DF): Ministério da Saúde; 2009.
17. Bernardi JLD, Jordão RE, Barros Filho AA. Alimentação complementar de lactentes em uma cidade desenvolvida no contexto de um país desenvolvido. *Rev Panam Salud Publica.* [Internet] 2009;26(5) [acesso em 15 jan 2014]. Disponível: <http://dx.doi.org/10.1590/S1020-49892009001100004>.
18. Araújo NL, Lima LHO, Oliveira EAR, Carvalho ES, Duailibe FT, Formiga LMF. Alimentação dos lactentes e fatores relacionados ao aleitamento materno. *Rev. Rene.* [Internet] 2013;14(6) [acesso em 15 dez 2013]. Disponível: <http://www.revistarene.ufc.br/revista/index.php/revista/article/view/1309/pdf>.
19. Fundo das Nações Unidas para a Infância (Unicef). Organização Mundial da Saúde (OMS). Iniciativa Hospital Amigo da Criança: revista, atualizada e ampliada para o cuidado integrado. Módulo 4 - Autoavaliação e monitoramento do hospital. Brasília (DF): Ministério da Saúde; 2010.
20. dos Santos KCR, Muraro LO, Witkowski MC, Breigeiron MK. Ganho de peso gestacional e estado nutricional do neonato: um estudo descritivo. *Rev. Gaúcha Enferm.* [Internet] 2014;35(1) [acesso em 12 fev 2014]. Disponível: <http://seer.ufrgs.br/index.php/RevistaGauchaEnfermagem/article/view/42783>.