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Factors associated with impediments to early breastfeeding: a descriptive study

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ABSTRACT

Aim: To check whether the fourth of the “ten steps to successful breastfeeding” is performed in a hospital in the northwestern region of Paraná. **Method:** an exploratory, descriptive study with a quantitative approach, conducted with 40 pregnant women in labor from July to October 2013. We used a semi-structured questionnaire and non-participant observation. To analyze the data we applied the chi-square test with Yates correction. **Results:** we identified a high number of caesarean section-births (33). Regarding mother-infant contact in the first hour, 39 mothers had eye contact, 32 has physical contact and only two breastfed in the first hour. **Discussion:** Some factors that prevented early breastfeeding and hindered the fourth step were found. **Conclusion:** the impediments found were the prevalence of cesarean delivery, the referral of baby to the nursery after delivery and the separation of hospital procedures from the model proposed by the Baby Friendly Hospital Initiative.

Descriptors: Breast Feeding; Normal Childbirth; Cesarean Section; Nursing.

INTRODUCTION

A study in the United States in 2009 revealed that 76.9% of children had not been breastfed. Of those on breastfeeding, 47.2% were breastfed up to six months of age. Only 25.5% received breast milk up to 12 months of age⁽¹⁾.

In Brazilian capital cities, a study showed that the prevalence of breastfeeding in children under six months was 41%⁽²⁾.

The barriers that prevent this are multifactorial and include mainly socioeconomic status and education. Low-income women have lower breastfeeding rates, a factor associated with early return to work after childbirth⁽³⁾.

Breastfeeding brings numerous benefits to the mother-child relation in the first hour of life. This practice has been recommended by the World Health Organization (WHO) since 1990, and Brazil officially adopted it in 1992 through the Baby Friendly Hospital Initiative (BFHI), whose primary objective is to promote, protect and support breastfeeding, in order to achieve the reduction of child mortality, among other important aspects for the child and the mother⁽⁴⁻⁵⁾. In 2010, UNICEF released a list of 335 Brazilian institutions registered in the program as Baby-Friendly Hospitals (BFH)⁽⁶⁾.

To join the Initiative, it is necessary that the candidate hospital meets the ten steps to successful breastfeeding described by Unicef⁽⁴⁾. All these are checked upon inclusion of the project in institution, as well as other required criteria, which go through three stages of evaluation: self-evaluation, pre-evaluation requested by the hospital and a visit of assessors from the Ministry of Health (MOH)⁽⁵⁾.

Only one of the 18 accredited hospitals in Parana is located in the city of Maringá⁽⁶⁾.

The Regional University Hospital of Maringá (HUM) was accredited in 2003 after a project which was started in 1995 by a multidisciplinary team that aimed to reduce early weaning and infant mortality rate⁽⁷⁾.

The other hospital in the city seeking certification was the site responsible in 2011 for 2,960 live births (LB), or in other words, 44.04% (6721 LB) of births in the entire city⁽⁸⁾. Since 2002, this institution has been seeking to meet the ten steps in order to obtain the title of BFH. In 2009 it underwent a course of management, promoting, protecting and supporting breastfeeding for employees of the child care department by the Breastfeeding Committee of Maringá (COAMAR) in order to provide resources for a committed and humanized practice, and also to accredit the institution in the MoH⁽⁹⁾.

Despite the efforts made, this philanthropic institution is finding organizational difficulties in the realization of the fourth step ("help the mother to initiate breastfeeding in the first half-hour after birth"). This way, even though it includes a rooming-in service (AC), the institutional procedures establish a flow in which the newborn (NB) undergoes immediate medical care and a bath before being taken to the site. Thus, the infant is not immediately referred with its mother to the rooming-in ward after labor, disregarding the recommendation of Ordinance no. 1016 of August 26th of 1993, which still calls for binomial contact in the first hour after birth⁽¹⁰⁾.

According to the WHO, scientific evidence shows that putting the child in early contact with the mother's areola during the first hour after birth positively influences the mother-infant relationship. Infants cry less during skin-to-skin contact with the mother, which increases the prevalence of breastfeeding and decreases infant mortality rate⁽¹¹⁾.

In this sense, an ecological study held in 67 countries showed a relatively weak and negative but statistically significant correlation between breastfeeding percentage in the first hour of life and neonatal mortality rates, showing the protective effect of breastfeeding in the first hour of life⁽¹²⁾.

It is worth noting that the MoH stresses that the fourth step for the BFHI should be interpreted as putting the infants in direct contact with the mother immediately after delivery during the first hour of their lives and encouraging mothers to recognize when their babies are ready to be fed⁽⁴⁾. Thus, the identification of factors that influence helping the mother in breastfeeding is very important and can support the implementation of new strategies for the realization of the fourth step in hospitals⁽¹³⁾.

In this context, the knowledge attributed to the fourth step by health professionals is an important factor. In a study conducted in Recife with 80 professionals working in a delivery clinic, 42.4% did not know or did not remember what this step was⁽¹⁴⁾.

Thus, the objectives of this study were to assess the factors associated with non-implementation of early breastfeeding and to outline the care service practice regarding the completion of the fourth step to successful breastfeeding in a hospital in the northwest of Paraná.

METHOD

An exploratory, descriptive study with a quantitative approach, conducted with mothers attending a charity hospital in northwestern Paraná.

The study enrolled women who met the following inclusion criteria: pregnant women

hospitalized by SUS, of 18 years of age or less, with gestational age of 38 weeks, pregnancies classified as low risk and with no complications during delivery. The sample included 40 pregnant women who received medical care in the period from July to October 2013.

Data were collected through semi-structured questionnaires with 21 questions including the identification of the mother, obstetric and neonatal data, track record of the labor process, birth, and initiation of breastfeeding. The researchers followed the process of parturition and birth until the moment of the mother-baby encounter in rooming-in using a Western® CR53 digital stopwatch to record the time intervals between the procedures performed.

The empirical material was organized into a database using a Microsoft Excel 2010 spreadsheet. Data were analyzed by chi-square association test with Yates correction for 2x2 tables. The significance level was 5%.

The outcome was defined as the initiation of breastfeeding during the baby's first hour of life, and the analysis was performed evaluating the interval between the health care interventions and any recorded impediments related to early breastfeeding.

The study was developed in accordance with current ethical regulations (Res. 466/2012-CNS), with prior approval of the research project by the Ethics Committee on Institutional Research, according to opinion No. 449,631.

RESULTS

Of the 40 mothers interviewed, 55% (22) were aged 21-29, 60% (24) were white and 77.5% (31) were married. As for education and work, 47.5% (19) had completed high school,

35% (14) had no paid activity and 65% (26) had a formal employment.

Gestational age ranged from 38 to 41 weeks; 50% (20) of patients started labor at 38 weeks of gestation and 2.5% (1) in the 41st week of pregnancy.

The percentage of cesarean-section births was 82.5% (33), and all the patients underwent spinal anesthesia and remained awake throughout labor, according to the reports. The percentage of vaginal delivery was 17.5% (7); 2.5% (1) received local anesthesia and 5% (2) underwent unilateral episiotomy. In 32.5% (13) of deliveries, the father was present.

Most infants (92.5% or 37 babies) were born with a weight of 2500g or more; 97.5% (39) had Apgar score between eight and ten in the fifth minute of life; 2.5% (1) were born presenting an anomaly (myelomeningocele). Only 2.5% (1) presented complications; 5% (02) were referred to the rooming-in in the first hour of life and 95% (38) were sent straight to the nursery, remaining in that unit for more than one hour (Table 1).

Table 1. Distribution of newborns according to birth and referral to the rooming-in service in the first hour of life. Maringa, 2013.

Newborns	n (40)	%
Gestational age		
38—1 39 weeks	20	50
39—1 40 weeks	12	30
40—1 41 weeks	7	17,5
41 weeks	1	2,5
Birth weight		
< 2500	3	7,5
≥ 2500	37	92,5
Issues		
No	39	97,5
Yes	1	2,5
Anomalies		
No	39	97,5
Yes	1	2,5

Referred to rooming-in service at first hour of life		
No	38	95
Yes	2	5
Apgar at 5th minute		
7	1	2,5
8	1	2,5
9	22	55
10	16	40

n – number of subjects % - percentage

Source: Authors' research

Regarding the mother-infant contact in the first hour of life, it was found that in 97.5% of births (39) there was eye contact, which ranged from zero to six minutes, with an average duration of thirty seconds and a mode of 10 seconds; 80% (32) had physical contact (Table 2). Of the professionals who assisted in this contact, 75% (30) were pediatricians, and 20% (08) were nursing technicians. In one case, the pediatrician handed the baby to his father so that he could present him to the mother; in another case, there was no professional assistance.

Table 2. Types and time of mother-infant contact in the first hour of infant's life. Maringa, 2013.

Type of contact	"Time (seconds)"	"Median (seconds)"	"Mode (seconds)"	Minimum	Maximum	Standard deviation
visual	69,5	30	10	0	360	82,43
physical	52	20	0	0	300	78,96

Source: Authors' research

In relation to breastfeeding, only 5% of mothers (2) who underwent normal childbirth breastfed their children in the first hour of life, and 100% of them were assisted by nursing technicians.

The chi-square test with Yates correction was applied to verify the association

between type of delivery and time of arrival of the baby into the rooming-in. The p-value found was 0.00096 at 5% significance (Table 3), demonstrating that there is an association between mode of delivery and time of arrival of the baby in rooming-in.

Table 3. Type of delivery time of referral of baby at rooming-in service. Maringa, 2013.

Type of delivery	Time of referral (h)		p-value 0,00096	Total
	≤01:00	>01:00		
Cesarean	1	32		33
Vaginal	4	3		7
Total	5	35		40

Source: Authors' research

In association analysis between the department the infant was referred to after delivery and the time elapsed until the mother-child meeting (Table 4), we also applied the chi-square test with Yates correction. The p-value was 0.00611, in other words, at 5% level of significance we found that there is an association between the variables.

Table 4. Department the baby was sent and binomial meeting time after delivery. Maringa, 2013.

Department	Time of arrival (h)		p-value 0,00611	Total
	≤01:00	>01:00		
Nursery	3	35		38
Rooming-in service	2	0		2
Total	5	35		40

Source: Authors' research

DISCUSSION

Regarding the small sample size, the study's limitations make it impossible to generalize the results or even confirm that the barriers encountered in the realization of the fourth step in this care in reality constitute

the main impediment to the achievement of 100% of breastfeeding in the city of Maringa.

However, we observed some factors associated to impediments to early breastfeeding and also to the non-realization of the fourth step proposed by the WHO, causing the prevalence of this to remain below expectations.

The Ministry of Health recommends that all infants should be placed next to the mother to suckle during their first half hour of life whenever both are in good condition, in order to stimulate eye and skin-to-skin contact between the binomial⁽⁵⁾.

We noted in this study that, although visual and physical contacts have been propitiated, breastfeeding during the baby's first hour in the hospital continues to be poor. This fact was also reported in a study in a BFH by Recife in 2010, which assessed the implementation of the fourth step and identified that promotion of breastfeeding was minimal, accounting for nearly 60% of failure. This showed that the majority of cases (35.6%) had no reason to justify not carrying out the fourth step⁽¹⁴⁾.

This information may be associated with the profile of obstetric care in relation to the type of delivery prevalent in the medical service, as well as to organizational barriers and factors that influence breastfeeding practices. In this context, it was possible to see in this study that the procedures of this hospital differ from the routines established by the model proposed by the BFHI, with regard to the fourth step to successful breastfeeding.

The BFHI has provided significant and necessary improvement in the rates of both beginning and duration of breastfeeding, as well as cultural, structural, technological and staff management changes that happen in hospitals that are now recognized as BFH.

These changes help to strengthen aspects such as exclusive breastfeeding, reduction of child mortality, narrowing of mother and baby relationships, improving the knowledge of professionals about the issue and recognition by the mothers regarding hospital staff work⁽¹⁵⁾.

Scientific evidence shows that in Africa, 16% of neonatal deaths could have been prevented if all infants were breastfed from their first day of life, and 22% if breastfeeding were started within the first hour of life⁽¹⁶⁾.

Thus, we can affirm that it is worthwhile to encourage the expansion of BFHI, especially in developing countries, in order to reinforce the importance of the program in promoting, protecting and supporting breastfeeding, which strengthens the Brazilian Public Health System (SUS) and contributes to the reduction of child mortality⁽¹³⁾.

Regarding the barriers to breastfeeding, some authors identify women's education, professional support, type of delivery and lack of information as the greatest problems standing against breastfeeding^(2,3).

In this study, pregnant women who underwent vaginal delivery were more likely to initiate breastfeeding early because the baby came to the room in less time when compared to cases where the mother had a caesarean section. The rooming-in is an essential factor for the promotion of breastfeeding and to facilitate the adoption of the practices set out in the "ten steps". This fact is evidenced in a survey conducted in the city of Vitoria in 2009 with 169 mothers and their babies, which showed prevalence of breastfeeding in the first hour of 63% and presented statistical significance of this variable with vaginal delivery ($p = 0.007$) and Rooming-in ($p < 0.001$)⁽¹⁷⁾.

The cesarean delivery stood out in the study as a deterrent factor, which can possi-

bly increase the time of separation between mother and baby, and hinder their meeting in rooming-in and the early initiation of breastfeeding^(17,18). So, it is up to the organizations wishing to accredit up or which already have the BFH title, to lead the local midwifery service to reduce caesarean section rates to levels between 10% and 15% of all deliveries or apply the Robson classification to define the rate of local institutions as recommended by WHO, taking into account the indications for this procedure, improving interventions and behaviors that promote breastfeeding in the babies' first hour of life, even when vaginal delivery is not indicated⁽¹⁹⁾.

The association analysis performed in this study between the sector to which the infant was referred after delivery and the time of mother-infant meeting after birth showed that when the newborn is sent to the nursery, it becomes impossible for the mother to provide breastfeeding in baby's first hour of life. Accordingly, having a rooming-in service is not enough for the fourth step to occur. It is necessary to reduce the time mother and child are kept apart after birth. Thus, it is essential that all staff assisting these patients are properly guided and encouraged to stimulate such care.

In addition, it became clear that, despite the existence of the rooming-in service, the vast majority of infants were referred to the nursery after birth, although there was no apparent risk to justify the need for them to remain under observation by the nursing team. Of babies born by vaginal delivery that were referred to the nursery, the average time of stay in the department was 2:15h, while for those born by cesarean section, the average stay was 3:08h. This was one of the main reasons for the absenteeism of the mother-baby binomial and the primary impediment to the realization of early breastfeeding.

A review of the systematic assistance procedures becomes therefore a priority to ensure that programs such as the BFHI are translated into routines that enable the achievement of planned objectives. The nurses, as the protagonists of the care process “must stand by this issue, working with their team, because these professionals have great potential to make changes and implement new practices that are essential for mother and baby”⁽²⁰⁾.

CONCLUSION

This study enabled us to understand the importance of the first contact between the mother and infant, both with regard to the formation of the primordial link between these two beings and to represent the singular mark of the first breastfeed.

Regardless of the institution’s interest in joining the BFHI, the care practice with regard to the realization of the fourth step to successful breastfeeding encounters contextual and organizational obstacles, requiring the need for change and the reorganization of the care procedures regarding postpartum and newborn care immediately after birth. Allowing the baby to be sent on to the mother in rooming-in in no risks situations ensures the sharing of a so important time in the life of the binomial, which is essential to the formation of the bond and in potentiating the benefits of early breastfeeding.

The results showed that the high number of caesarean sections is also a limiting factor to the institution which desires to achieve the goals proposed by the program, in addition to increasing the time of separation between mother and child.

Therefore, the implementation of educational activities that address the importance

of breastfeeding in the first hour of life is essential. We observe a lack of preparation by the nursing staff and other professionals regarding the proper management of the fourth step. It is necessary to sensitize and train them to change practices in such a way that they meet the requirements of MoH and WHO in order to achieve the accreditation as a BFH aiming to promote, protect and support breastfeeding and also to improve the quality of care given to postpartum women and newborns.

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