

# Characterization of the breastfeeding guidelines received by pregnant and postpartum women in the city of Belo Horizonte

Caracterização das orientações sobre aleitamento materno recebidas por gestantes e puérperas na cidade de Belo Horizonte

Caracterización de las pautas de lactancia recibidas por mujeres embarazadas y posparto en la ciudad de Belo Horizonte

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## Abstract

**Purpose:** to characterize the breastfeeding guidelines received by pregnant and postpartum women in the city of Belo Horizonte and to investigate factors that influence exclusive breastfeeding, the use of pacifier and baby bottle. **Methods:** this is a descriptive observational cross-sectional study, involving 168 mothers with a mean of  $27.2 \pm 6.6$  years of age. A questionnaire was applied with questions regarding the guidelines received in the prenatal care and in the immediate and late postnatal care. The data were analyzed using descriptive statistics and associations were obtained from maternal and infant age, maternal schooling and guidelines received with exclusive breastfeeding, use of pacifiers and baby bottles. **Results:**

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### Authors' contributions:

TFLM and FAM: were responsible for the study design, data collection and analysis and writing of the manuscript.

AALF and ARM: general orientation of the study, supervising of the design, collection, analysis and writing of the study.

RMMMF: participated on the study writing.

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132 participants (78.6%) reported having received guidance at some moment in the pregnancy-puerperal cycle. The counseling occurred predominantly in prenatal care, but covered the largest number of women, 121 (91.7%), in the immediate postnatal period, and the professional in charge varied according to the moment the guidelines were given. The main strategy used was individual counseling addressing several topics; the most frequent ones were the baby's hold on the breast; the benefits of breastfeeding for the mother and the baby; the ideal period of exclusive breastfeeding and the breast care. Most of the participants, 126 (95.5%), considered that the guidelines were useful and 101 (76.5%) said they had used them. Only the child's age was associated with exclusive breastfeeding, and the use of pacifier and baby bottle, and, as the child's age increased, the prevalence of breastfeeding decreased, and the frequency of pacifier and baby bottle use increased. **Conclusion:** There is a lack of guidance in the late postnatal care and a need to review the guidance strategies, since the educational practices did not influence the performance of exclusive breastfeeding and the use of baby bottles and pacifiers.

**Keywords:** Speech, Language and Hearing Sciences; Pregnant Women; Breast Feeding; Health Education; Counseling.

### Resumo

**Objetivo:** caracterizar as orientações sobre aleitamento materno, recebidas por gestantes e puérperas na cidade de Belo Horizonte, e investigar fatores que influenciam o aleitamento materno exclusivo, o uso da chupeta e da mamadeira. **Métodos:** trata-se de um estudo transversal observacional descritivo, do qual participaram 168 mães com média de  $27,2 \pm 6,6$  anos de idade. Foi aplicado um questionário com questões a respeito das orientações recebidas no pré-natal e no pós-natal imediato e tardio. Os dados foram analisados por meio de estatística descritiva e foram obtidas as associações da idade da mãe e do bebê, escolaridade materna e orientações recebidas com aleitamento materno exclusivo, uso de chupeta e de mamadeira. **Resultados:** 132 participantes (78,6%) relataram ter recebido orientação em algum momento do ciclo gravídico-puerperal. As orientações ocorreram predominantemente no pré-natal, mas abrangeram o maior número de mulheres, 121 (91,7%), no pós-natal imediato, sendo que o profissional responsável variou conforme o momento em que essas orientações foram ministradas. A principal estratégia utilizada foi o aconselhamento individual abordando temas diversos, sendo os de maior ocorrência a pega do bebê, os benefícios para a mãe e para o bebê, o tempo ideal de aleitamento exclusivo e os cuidados com as mamas. A maior parte das entrevistadas, 126 (95,5%), afirmou que as orientações foram úteis e 101 (76,5%) disseram tê-las empregado. Somente a idade da criança apresentou associação com o aleitamento materno exclusivo e com o uso de chupeta e de mamadeira, sendo que, à medida que a idade da criança aumentou, houve redução da prevalência do aleitamento materno e aumento da frequência de uso de chupeta e de mamadeira. **Conclusão:** há carência de orientações no pós-natal tardio e necessidade de se rever as estratégias de orientação, visto que as práticas educativas não influenciaram a realização do aleitamento materno exclusivo e o uso de mamadeira e chupeta.

**Palavras-chave:** Fonoaudiologia; Gestantes; Aleitamento materno; Educação em Saúde; Aconselhamento.

### Resumen

**Objetivo:** caracterizar las pautas sobre lactancia materna recibidas por mujeres embarazadas y mujeres en la ciudad de Belo Horizonte, e investigar los factores que influyen en la lactancia materna exclusiva, el uso de chupetes y la alimentación con biberón. **Métodos:** estudio descriptivo observacional de corte transversal, en el que participaron 168 madres con un promedio de  $27,2 \pm 6,6$  años. Se aplicó un cuestionario con preguntas sobre las orientaciones recibidas en el prenatal, inmediato y posnatal tardío. Los datos se analizaron utilizando estadísticas descriptivas y se obtuvieron las asociaciones de edad materno-infantil, educación materna y orientación recibida con lactancia materna exclusiva, chupete y uso de biberón. **Resultados:** Ciento treinta y dos participantes (78,6%) informaron haber recibido orientación en algún momento del ciclo embarazo-puerperal. El asesoramiento se produjo predominantemente en la atención prenatal, pero cubrió el mayor número de mujeres, 121 (91,7%), en el

posnatal inmediato, y el profesional a cargo varió según el tiempo que se les dio. La estrategia principal utilizada fue el asesoramiento individual, abordando diversos temas, siendo el más común el manejo del bebé, los beneficios para la madre y el bebé, el momento ideal para la lactancia materna exclusiva y el cuidado de los senos. La mayoría de los entrevistados, 126 (95,5%), declaró que las pautas fueron útiles y 101 (76,5%) las empleó. Solo la edad del niño se asoció con la lactancia materna exclusiva y el uso de chupetes y biberones, siendo que a medida que aumentaba la edad del niño, se reducía la prevalencia de la lactancia materna y aumentaba la frecuencia de uso de chupetes y biberones. **Conclusión:** hay una falta de asesoramiento posnatal tardío y la necesidad de revisar las estrategias de orientación, ya que las prácticas educativas no influyeron en la lactancia materna exclusiva y el uso de biberones y chupetes.

**Palabras clave:** Fonoaudiología; Mujeres Embarazadas; Lactancia Materna; Educación en Salud; Consejo.

## Introduction

Breastfeeding is a strategy that prevents infant morbidity and mortality<sup>1</sup>. Breast milk protects the baby against infections and reduces the risk of malocclusions, obesity and diabetes<sup>2</sup>. The benefits for women who breastfeed include less chance of developing breast cancer, ovarian cancer and type 2 diabetes, among others<sup>2</sup>. Despite the well-known benefits promoted by breast milk, breastfeeding rates in Brazil are still lower than expected.

Exclusive and on demand breastfeeding is recommended until six months of age and its maintenance, plus other nutritional sources, up to twenty-four months or more<sup>3</sup>. A study<sup>4</sup> that analyzed the evolution of breastfeeding indicators in Brazil, in the period from 1986 to 2013, found that there was an increase from 1.6% to 14.6% in the prevalence of exclusive breastfeeding until the sixth month. Public policies that contributed to this increase include the regulation of the commercialization of infant formulas, the adoption of Hospital Amigo da Criança (Baby Friendly Hospital) initiative and Mãe-Canguru (Mother-Kangaroo) Strategy, the expansion of the coverage of human milk banks and the implementation of the Amamenta e Alimenta Brasil (Breastfeed and Feed Brazil) Strategy<sup>4</sup>. Although the improvement is evident, the country still has a long way to go to achieve the goals advocated by the World Health Organization<sup>3</sup>.

Several factors interfere in the initiation and maintenance of breastfeeding. Cesarean delivery<sup>5</sup>, low schooling level<sup>6</sup> and the return to work<sup>7,8</sup> have a negative influence, while previous maternal experience<sup>5,6,9</sup>, breastfeeding in the first hours after delivery<sup>9</sup> and paternal support<sup>9</sup> have a positive influence, as well as the assistance pro-

vided by the health team and the guidance received by pregnant puerperal ones<sup>5,8-10</sup>.

The benefits of the guidelines and advice provided by health professionals on self-efficacy (the mother's perception of the ability to breastfeed her child) and on the maintenance of breastfeeding are described in the literature<sup>7,11</sup>. Although there is information linked to health promotion campaigns and programs, breastfeeding on demand is an aspect little known by mothers and many women still believe that there is weak breast milk<sup>12,13</sup>. That is why it is important that the guidelines for promoting breastfeeding are carried out.

One study investigated the influence of an educational program on self-efficacy, duration and rate of exclusive breastfeeding in Hong Kong women. The women, with gestational age between 28 and 38 weeks, participated in training lasting two and a half hours and, two weeks after delivery, received counseling by phone. The mothers who participated in the program had a higher score in the self-efficacy research to breastfeed, two weeks after delivery. The rate of exclusive breastfeeding in the sixth month after delivery was 11.4% in the group that participated in the program and only 5.6% in the control group<sup>7</sup>.

A literature review study concluded that the promotion of breastfeeding education, through individual sessions based on the needs of the woman and carried out by a trained professional in prenatal care, associated or not with postnatal care, had a significant effect on the increase in breastfeeding rates among low-income women in the United States<sup>11</sup>.

Services and health professionals are considered important for successful breastfeeding. The information and support provided to women must take into account the woman's desire to breastfeed,

her anguish and fears, her life context and previous experiences; factors that will directly influence the effectiveness of breastfeeding<sup>14</sup>.

The health professional that cares for mothers and babies must be prepared to assist the nursing mother in the management of the main problems that may occur in the breastfeeding process and that can lead to early weaning. Otherwise, the guidelines will not result in an appropriate change of conduct<sup>10</sup>. It is important that the speech-language pathologist actively participate in these guidelines, either in person or through the training of the health team<sup>10,16</sup>, since this is the professional qualified to evaluate and rehabilitate the suction function and other stomatognathic functions. With regard to Speech-Language Pathology, breastfeeding provides adequate bone and muscle development of the stomatognathic system and prevents the installation of harmful oral habits, such as the use of a pacifier<sup>16</sup>. It is also considered that breastfeeding is an extremely favorable moment for communication, as it allows the expansion of the mother-baby bond<sup>16</sup>, which favors the acquisition and satisfactory development of the child's language.

Research about the guidelines on breastfeeding received by mothers in health services allows us to know how this process has been conducted and what is its impact on the practices of these women. Information of this nature helps to understand the behavior adopted by mothers and the factors that influence such behavior, as well as helps to understand the interventions that are being carried out with these women, providing data for restructuring projects that address the theme.

Thus, the aim of the present study was to characterize the guidelines on breastfeeding received by pregnant and puerperal women in the city of Belo Horizonte, and to investigate factors that influence exclusive breastfeeding and the use of pacifiers and baby bottles.

## Material and method

This is a descriptive observational cross-sectional study, approved by the Research Ethics Committee of Universidade Federal de Minas Gerais - UFMG - under the number 00617812.6.0000.5149, in which 168 mothers recruited at Hospital das Clínicas in the city of Belo Horizonte participated at the time they attended the Universal Neonatal Hearing Screening (UNHS). The scheduling of babies for UNHS, in the referred hospital, is carried out by the Municipal Health Department. Therefore, the study participants attended various health services in the city of Belo Horizonte during prenatal period and delivery.

The sample calculation was carried out based on the population of mothers who attended monthly with their children to perform UNHS at Hospital das Clínicas of UFMG (200/month), the prevalence of 40% of breastfeeding, error of 5% and confidence level of 99%, making a total of 153 mothers. The final sample consisted of 168 mothers.

The inclusion criteria were: birth of the child at most three months before, age over 18 years and signature of the Free and Informed Consent Form. Exclusion criteria were considered: mothers of babies with neuromotor impairments and mothers with cognitive impairments, being these data investigated when the questionnaire was applied.

A questionnaire with 27 questions (Figure 1), developed by the researchers, was used for data collection, aiming to characterize the breastfeeding guidelines received by the mothers, the moment in which they occurred, the professionals involved, the strategies employed in this process as well as the current practices of exclusive breastfeeding, use of pacifiers and baby bottles. The questionnaire was applied individually with each participant in a silent room at the hospital.

**Questionnaire**

**Registration number:** \_\_\_\_\_

1. Mother's age (years): \_\_\_\_\_
2. Mother's schooling level: 1( ) No schooling. 2( ) Incomplete Elementary School. 3( ) Complete Elementary School. 4( ) Incomplete high school. 5( ) Complete high school. 6( ) Incomplete college 7( ) Complete college. 8( ) post graduation. 9( ) Did not answer
3. Baby's age (months): \_\_\_\_\_
4. Did you receive any guidance? 1.No ( ) 2.Yes ( ) If not, skip to question 25.

**In Prenatal:**

5. Received guidance: 1( ) Yes 2( ) No
6. Where (which hospital): \_\_\_\_\_
7. How many times: \_\_\_\_\_
8. Who guided: 1( ) Nurse. 2( ) Speech-language pathologist. 3( ) Pediatrician. 4( ) Nursing technician. 5( ) CHA. 6( ) Others: \_\_\_\_\_
9. How: 1( ) Attendance in group. 2( ) Spontaneous conversation. 3( ) Information booklet. 4( ) Outros
10. About what: 1( ) Baby's hold on the breast. 2( ) Benefits of breastfeeding for the mother and baby. 3( ) Use of baby bottle and pacifier. 4( ) Global baby development. 5( ) Breast care. 6( ) Ideal time for exclusive breastfeeding. 7( ) Others \_\_\_\_\_

**In the immediate postnatal period (on admission):**

11. Received guidance: 1( ) Yes 2( ) No
12. Where (which hospital): \_\_\_\_\_
13. How many times: \_\_\_\_\_
14. Who guided: 1( ) Nurse. 2( ) Speech-language pathologist. 3( ) Pediatrician. 4( ) Nursing technician. 5( ) CHA. 6( ) Others: \_\_\_\_\_
15. In what way: 1( ) Attendance in group. 2( ) Spontaneous conversation. 3( ) Information booklet. 4( ) Others
16. About what: 1( ) Baby's hold on the breast. 2( ) Benefits of breastfeeding for the mother and baby. 3( ) Use of baby bottle and pacifier. 4( ) Global baby development. 5( ) Breast care. 6( ) Ideal time for exclusive breastfeeding. 7( ) Others \_\_\_\_\_

**In the late postnatal**

17. Received guidance: 1( ) Yes 2( ) No
18. Where (which hospital): \_\_\_\_\_
19. How many times: \_\_\_\_\_
20. Who guided: 1( ) Nurse. 2( ) Speech-language pathologist. 3( ) Pediatrician. 4( ) Nursing technician. 5( ) CHA. 6( ) Others: \_\_\_\_\_
21. In what way: 1( ) attendance in group. 2( ) Spontaneous conversation. 3( ) Information booklet. 4( ) Others
22. About what: 1( ) Baby's hold on the breast. 2( ) Benefits of breastfeeding for the mother and baby. 3( ) Use of baby bottle and pacifier. 4( ) Global baby development. 5( ) Breast care. 6( ) Ideal time for exclusive breastfeeding. 7( ) Others \_\_\_\_\_

**Practices:**

23. Do you think the guidelines were useful? 1( )No. 2( )Yes. 3( )Some. 4( )NA 5.( )Did not answer
24. Can you apply these guidelines? 1( )No. 2( )Yes. 3( )Some. 4( )NA 5.( )Did not answer
25. Are you carrying out exclusive breastfeeding? 1( )No. 2( )Yes. 3( )Did not answer  
If NO, Until when did you carry it out (months)? \_\_\_\_\_
26. Is your child using a pacifier? 1( )No. 2( )Yes. 3( )Did not answer  
If YES, why? \_\_\_\_\_
27. Is your child using a baby bottle? 1( )No. 2( )Yes. 3( )Did not answer  
If YES, why? \_\_\_\_\_

Legend: NA = not applicable; CHA = Community Health Agent

**Figure 1.** Questionnaire used in the study

The data were analyzed using measures of central tendency and dispersion of the continuous variables and through frequency distribution of the categorical variables. The guidance moments were categorized as prenatal, immediate post-natal (at the hospital) and late postnatal (after hospital

discharge). The associations between exclusive breastfeeding practices and the use of pacifiers and baby bottles with the other variables were assessed using the T-Test, Mann Whitney and Chi-square tests. In all analyzes, a 5% significance level and a 95% confidence interval were adopted.

## Results

Of the 168 mothers who answered the questionnaire, 132 (78.6%) reported having received guidance at some point in the pregnancy-puerperal cycle (prenatal, immediate postnatal or late postnatal) and 36 (21.4%) reported not having received any guidance. Among those who received guidance, 71 (53.8%) received guidance during the prenatal

period, 121 (91.7%) in the immediate postnatal period and 34 (25.8%) in the late postnatal period. It should be noted that each respondent may have received guidance at different times, as well as more than one guidance at each investigated moment.

When analyzing the quantitative variables of the study (Table 1), it was observed that the mean age of the babies was less than one month of life and the largest number of guidelines was given in prenatal care.

**Table 1.** Quantitative variables of the study

Quantitative variables	Mean	Median	Standard Deviation	Minimum	Maximum
Mother's age (years)	27.2	27.0	6.6	18	45
Baby's age (days)	28.7	23.0	19.7	9	92
Nº of prenatal guidelines	4.1	3.0	2.9	1	15
Nº of immediate postnatal guidelines	2.8	2.0	2.1	1	12
Nº of late postnatal guidelines	1.3	1.0	0.7	1	4

Legend: No = number

Analyzing the characteristics of the guidelines in prenatal, immediate postnatal and late postnatal (Table 2), it was found that the main responsible professionals for the guidelines varied according to the moment in which they occurred. The greatest number of guidelines was performed by the gynecologist in the prenatal period, by the nurse in the immediate postnatal period and by the pediatrician in the late postnatal period. Individual counseling was the main strategy used, addressing diverse topics, from breast care to the child's overall development.

Regarding the usefulness of the guidelines, among the participants who answered the question, 126 (95.5%) reported that they were useful, one (0.8%) that they were not and five (3.8%) that only some were useful. When asked about the application of the guidelines, 101 (76.5%) of these nursing mothers said they had managed to put them into practice, four (3.0%) said they had not and 27 (20.5%) said they had applied only some of them.

As for the level of schooling, the sample was divided into two categories. The first had mothers who had completed elementary school and the second with mothers with schooling equal to or higher than incomplete high school. Thus, it was found

that, among the 167 (99.4%) who had some level of schooling, 84 (50.3%) fit into the first category and 83 (49.7%) into the second. It was carried out an analysis of the association between schooling level and these variables: exclusive breastfeeding, baby bottle and pacifier use. No significant results were found (Table 3).

The fact that the mother received guidance at any time during the pregnancy-puerperal cycle was not associated with the variables of exclusive breastfeeding ( $p=0.627$ ), pacifier use ( $p=0.643$ ) and baby bottle use ( $p=0.850$ ), as well as there was no association between the moment when the guidelines occurred and these practices adopted by the mothers (Table 4).

An analysis of the association between the age of the mother and the baby with the same variables mentioned was also performed and it was observed that only the baby's age was associated with the performance of exclusive breastfeeding and use of pacifier and baby bottle (Table 5).

No association was found between the number of guidelines received and the performance of exclusive breastfeeding ( $p=0.338$ ), the use of the pacifier ( $p=0.970$ ) or the bottle ( $p = 0.703$ ).

**Table 2.** Characteristics of the guidelines in prenatal, immediate postnatal and late postnatal

Characteristics of the guidelines	Prenatal	Immediate postnatal	Late postnatal
	n° (%)	n° (%)	n° (%)
<b>Professional who guided</b>			
Nurse	32 (45.7)	103 (86.6)	9 (27.3)
Gynecologist	40 (56.3)	1 (0.8)	2 (6.1)
Speech-language pathologist	4 (5.7)	11 (9.2)	0 (0.0)
Pediatrician	3 (4.3)	49 (41.2)	23 (69.7)
Nursing technician	0 (0.0)	9 (7.6)	0 (0.0)
Community Health Agent	0 (0.0)	0 (0.0)	0 (0.0)
Others	10 (6.0)	11 (6.6)	2 (6.1)
<b>Guidance strategy</b>			
Attendance in Group	15 (8.9)	27 (17.4)	1 (2.5)
Individual conversation	64 (60.9)	105 (67.7)	31 (79.4)
Information booklet	22 (20.9)	20 (12.9)	6 (15.3)
Others	5 (4.7)	3 (1.9)	1 (2.5)
<b>Guidance theme</b>			
Baby's hold on the breast	63 (87.5)	113 (95.0)	24 (72.7)
Benefits for mother and baby	65 (90.3)	106 (89.1)	25 (75.8)
Baby bottle and pacifier use	47 (65.3)	77 (64.7)	14 (42.4)
Global baby development	45 (62.5)	68 (57.1)	15 (45.5)
Breast care	61 (84.7)	96 (80.7)	20 (60.6)
Ideal time for exclusive breastfeeding	57 (79.2)	99 (83.2)	25 (75.8)
Others	1 (0.6)	0 (0.0)	0 (0.0)

Legend: n = number

**Table 3.** Association between the mother's schooling and the variables exclusive breastfeeding, use of pacifier and use of baby bottle

Mother's schooling	Exclusive breastfeeding		Use of pacifier		Use of baby bottle	
	no (%)	yes (%)	no (%)	yes (%)	no (%)	yes (%)
Up to complete elementary school	16 (9.5)	68 (40.7)	46 (27.5)	38 (22.7)	67 (40.1)	17 (10.1)
Equal or higher than incomplete high school	21 (12.5)	62 (37.1)	52 (31.1)	31 (18.5)	60 (35.9)	23 (13.7)
p-value*	0.331		0.301		0.258	

Legend: \* Chi-square test; p = probability of significance at 5%.

**Table 4.** Association Between The Moment Of The Guidelines And The Variables Exclusive Breastfeeding, Use Of Pacifier And Use Of Baby Bottle

Moment	Exclusive breastfeeding		Use of pacifier		Use of baby bottle	
	no (%)	yes (%)	no (%)	yes (%)	no (%)	yes (%)
<b>Prenatal</b>						
No (%)	14 (50.0)	47 (45.2)	41 (51.9)	20 (37.7)	46 (45.5)	15 (48.4)
Yes (%)	14 (50.0)	57 (54.8)	38 (48.1)	33 (62.3)	55 (54.5)	16 (51.6)
p-value*	0.675		0.154		0.838	
<b>Immediate postnatal</b>						
No (%)	1 (3.6)	10 (9.6)	6 (7.6)	5 (9.4)	10 (9.9)	1 (3.2)
Yes (%)	27 (96.4)	94 (90.4)	73 (92.4)	48 (90.6)	91 (90.1)	30 (96.8)
p-value*	0.456		0.755		0.457	
<b>Late postnatal</b>						
No (%)	24 (85.7)	74 (71.2)	57 (72.2)	41 (77.4)	73 (72.3)	25 (80.6)
Yes (%)	4 (14.3)	30 (28.8)	22 (27.8)	12 (22.6)	28 (27.7)	6 (19.4)
p-value*	0.147		0.548		0.482	

Legend: \* Chi-square test; p = probability of significance at 5%.

**Table 5.** Association between the mother's age and the baby's age and the variables exclusive breastfeeding, use of pacifier and use of baby bottle

Practices	Mother's age			Baby's age		
	n	Mean (years)	p-value*	n	Mean (days)	p-value**
<b>Exclusive breastfeeding</b>						
No	37	28.2	0.276	37	30	0.012
Yes	131	26.9		131	21	
<b>Use of pacifier</b>						
No	99	27.2	0.617	99	20	0.041
Yes	69	26.9		69	26	
<b>Use of baby bottle</b>						
No	128	26.9	0.285	128	20	0.001
Yes	40	28.2		40	30	

Legend: \* T-Test; \*\*Mann Whitney Test; p= probability of significance at 5%.

## Discussion

The importance of educational programs, counseling and guidelines for initiating and maintaining breastfeeding was recorded by several researchers <sup>7,10,13</sup>. In the present study, it was observed that most mothers interviewed reported having received guidance on breastfeeding at some point: pregnancy or postnatal. Although the number of mothers oriented was high, due to the importance of the guidelines on breastfeeding during the pregnancy-puerperal cycle, it was expected that this percentage would be close to 100%.

It was found that the largest number of guidelines was performed in the prenatal period. However, immediate postnatal care was the moment when the greatest number of mothers received guidance. Thus, it is possible to note that, in the investigated sample, most women were approached while still in the hospital and also that prenatal actions are able to often reach the same pregnant one. The literature indicates that educational actions are important both in prenatal care, as well as in immediate and late postnatal care <sup>7,11</sup>. Health education groups, in the prenatal period, proved to be effective as a strategy for maintaining breastfeeding, as well as home visits, before and after childbirth, with a view to assisting in solving problems and involving the family in supporting the breastfeeding <sup>15</sup>.

The gynecologist was the professional who gave the most guidance in the prenatal period, which is because the contact of this professional with the pregnant one is the most frequent in this period <sup>17</sup>. The fact that the nurse was the most present professional in the guidelines performed

in the immediate postpartum period corroborates the literature <sup>18</sup>, which highlights the wide participation of this professional in maternal and child care, including support for breastfeeding, during the postpartum period at the maternity hospital <sup>19</sup>. In the late postnatal period, it was found that the pediatrician was the professional who gave the most guidance, suggesting that, after discharge from the maternity hospital, pediatric or childcare follow-up is a key phase to support the maintenance of breastfeeding <sup>17</sup>.

It is necessary to emphasize that, at various times, mothers had difficulty in informing which professional guided them, probably demonstrating the lack of a clearer presentation in this contact, which would be important for greater interaction and, consequently, acceptance of the guidelines received. It is also noteworthy that the speech-language pathologist was little present in these guidance activities, although clarifications about the development of the stomatognathic system, as well as the language and hearing, are relevant in this theme. Authors <sup>10</sup> affirm the need to have a multiprofessional team working to guide mothers and emphasize the importance of the presence of a speech-language pathologist to advise on the disadvantages of using pacifiers and baby bottles, not only to avoid early weaning, but also to prevent orofacial myofunctional alterations.

Among the guidance strategies researched in the present study, it was found that individual counseling prevailed in the three investigated moments. The literature points out that individual counseling has a beneficial effect on the maintenance of breastfeeding <sup>15</sup>. A systematic review of the literature,



with the objective of identifying which strategies are effective to extend the duration of breastfeeding, found that the most effective interventions were the long-term ones, intensive, which combined information, guidance and support for mothers, whether they were health education groups, home visits or individual counseling. The strategies that had no effect were those with no face-to-face interaction, such as the telephone calls, isolated use of printed material, such as leaflets given to mothers, or small-scale interventions <sup>15</sup>.

The present study investigated the topics covered in the guidelines and found that the baby's hold on the breast, the benefits of breastfeeding for mother and baby, breast care and the ideal time for exclusive breastfeeding were the most common themes at all moments of the guidelines. The use of a baby bottle and pacifier and the global baby development were less present in the guidelines, especially in late postnatal care, the moment that these guidelines would be more pertinent.

A study <sup>18</sup>, carried out in the public health network of Maringá, found that, among the guidelines received in prenatal and late postnatal care, those related to the time of exclusive breastfeeding stood out, while in maternity the most frequent guidelines were related to the positioning and correct hold. Another study <sup>19</sup>, carried out in a private hospital in the same city, found, through the reports of puerperal ones, that among the guidelines conducted in three moments, prenatal, delivery and postpartum, gaps were identified in relation to information about hygiene, physical activity of the pregnant one, participation of the father in all care for the newborn, maternal home care according to the type of delivery and management of breastfeeding. The use of a baby bottle and pacifier should be a guideline present since prenatal care and emphasized in late postnatal care, given its relationship with early weaning <sup>20-22</sup>.

Research suggests that the guidelines should be based on the doubts and needs of each family <sup>19,23</sup>. However, essential themes need to be systematically emphasized in the guidelines in order to eliminate the myths disseminated on the subject. A study <sup>13</sup>, carried out in a maternity hospital in Sergipe, found that even previously oriented mothers failed to answer basic questions such as, for example, if there is weak breast milk. Another study <sup>10</sup> found that knowledge about the topic does not always determine the change in conduct. Such

studies <sup>10,13</sup> show the strong influence that cultural aspects have on breastfeeding and reinforce the need for the guidelines.

Studies show that the level of schooling is associated with the duration of breastfeeding <sup>6,22,24,25</sup>. Mothers with higher level of schooling tend to breastfeed for a longer time, possibly due to the possibility of greater access to information on the advantages of breastfeeding <sup>6,24</sup>. However, in the present study, the level of schooling was not associated with the practice of exclusive breastfeeding, use of baby bottle or pacifier.

Influence of the receiving of guidelines or the moment when they happened in the practices investigated were not found. Some hypotheses can be raised to justify this finding: the memory bias, always involved in this type of study and the sample, which is only representative of the investigated population. Another question that can be raised is related to the way the guidelines were given by the health teams, which may not have been effective in encouraging breastfeeding. Thus, it is extremely important that the guidance strategies are constantly reassessed.

Health professionals who care for mothers and babies need, in addition to knowing the benefits of breastfeeding for children and their mothers, to be supplied with information to provide adequate guidance on the prevention and management of the main problems that occur during the breastfeeding process. Help the women to establish and maintain the practice of exclusive breastfeeding is a complex task. For this reason, the quantity and quality of the information transmitted and the psycho-emotional support of the family and the health team are fundamental to minimize the anxiety of the nursing mother <sup>19</sup>. In this context, it is important to highlight the need for support, training and surveillance for the health teams so that they remain safe and cohesive in their skills and knowledge for the continuous promotion of breastfeeding.

In view of the evidence in the literature that the guidelines are capable of promoting positive changes in the beginning and duration of breastfeeding <sup>11</sup>, it is understood that the results of the present study are associated with the characteristics of the interventions practiced. Since small-scale interventions, limited to a short period of time, have little impact on the duration of breastfeeding <sup>15</sup>, the guidelines practiced must be rethought by health teams working with pregnant ones and nurs-

ing mothers in the city of Belo Horizonte, bringing elements for reflection and possible restructuring of their practices in relation to the promotion of breastfeeding.

Some authors indicate that the mother's age is directly related to the establishment of breastfeeding<sup>24</sup>, which can be explained by the greater knowledge and experience accumulated by older mothers<sup>23</sup>, as well as by the difficulties that pregnancy itself, often unplanned, can bring to younger mothers. Others did not find an association between maternal age and any indicator related to breastfeeding<sup>5</sup>, which meets the results of the present study. Possibly, the differences are evident when the sample includes adolescents<sup>26</sup>, which did not occur in the present study. The absence of a relation between maternal age and pacifier use also corroborates the literature<sup>21</sup>.

Mothers with babies between 2 and 90 days were interviewed and an association was found between the mean age of the babies and exclusive breastfeeding, which agrees with the literature, which indicates a reduction in the prevalence of children in breastfeeding as the children's age increases<sup>4</sup>. Therefore, it can be said that, during the child's first months of life, mothers tend to follow the guidelines on exclusive breastfeeding more. There was also an association between the mean age of babies and the use of pacifiers and baby bottles, with such deleterious oral habits being less frequent in younger children. Studies show that the prevalence of pacifier and baby bottle use is lower in children who are exclusively breastfed<sup>20-22</sup>, corroborating the present study. Once again, the need to monitor these mothers for a longer period after delivery is emphasized.

A limitation of the study, inherent to the application of questionnaires, is the dependence of the mothers' memory and individual perception on the researched subjects. Another limitation is the homogeneity of the sample, composed of users of Sistema Único de Saúde (Unified Health System), which makes it impossible to generalize the results obtained in this research to other populations.

Suggestions for future research include associating mothers' previous experience with other children to their actions with the last child. In addition, the association between the guidelines received and the babies' age, using a sample with age older than 90 days, can provide more information on the topic.

## Conclusion

It was found that the guidelines received by the mothers were given mainly in the immediate postnatal period and covered diverse topics, with the most frequent occurrence being the baby's hold on the breast, benefits for the mother and the baby, ideal time for exclusive breastfeeding and care with the breasts. It was also observed that the mothers had difficulty in identifying which health professional guided them and that the main strategy used to encourage breastfeeding was characterized by individual conversations between the professional and the nursing mother. Most participants stated that the guidelines were useful and that they were able to put them into practice. The only factor that influenced the researched breastfeeding practices - exclusive breastfeeding, use of pacifier and baby bottle - was the baby's age, and, as the child's age increased, there was a reduction in the prevalence of breastfeeding and increased frequency of pacifier and baby bottle use.

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