Original Article

https://doi.org/10.1590/2317-6431-2024-3012en

Audiology Communication Research
ISSN 2317-6431

Difficulties in breastfeeding during the postpartum period

Dificuldades no aleitamento materno durante o puerpério

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ABSTRACT

Purpose: To characterize the breastfeeding difficulties faced by users of a Breastfeeding Clinic, in the different postpartum periods. **Methods:** Observational, cross-sectional study with secondary data, analyzing the medical records of all puerperal women (n=269) from August 2019 to July 2022. The study first defined the response variable as the postpartum period and then as the existence of breastfeeding complaints. Descriptive analyses and univariate and multivariate logistic regression of the data were performed. **Results:** In the immediate postpartum period, mothers presented more breastfeeding complaints, breast problems, and breastfeeding pain. In the late postpartum period, there was no difference regarding greater or lesser difficulty. In the remote postpartum period, a greater proportion of mothers reported that their children had difficulty gaining weight. The variables associated with the mother were: no breastfeeding complaints, normal delivery, breastfeeding in the first hour of life, healthy breasts and breast tissue, exclusive breastfeeding, adequate latch, mother's and child's adequate positioning, among others. Breastfeeding complaints were statistically significantly associated with abnormal appearance of the breasts, not having breastfed in the first hour of life, incorrect latch, having had difficulty in managing/adjusting the positioning, and needing to return to the health center. **Conclusion:** Puerperal women treated at the Breastfeeding Clinic presented more breastfeeding difficulties in the immediate postpartum period, reporting complaints, breast problems, and pain.

Keywords: Breastfeeding; Weaning; Primary health care; Postpartum period; Human milk.

RESUMO

Objetivo: Caracterizar as dificuldades enfrentadas no aleitamento materno por usuárias de um ambulatório de amamentação, nos diferentes períodos do puerpério. **Métodos:** Estudo observacional, transversal, realizado com dados secundários. Foram analisados os prontuários de todas as puérperas (n=269) de agosto de 2019 até julho de 2022. Na primeira etapa da análise, o estudo definiu o período do puerpério como variável resposta e, posteriormente, a variável resposta passou a ser a existência de queixas para amamentar. Foram realizadas análises descritivas e regressão logística univariada e multivariada dos dados. **Resultados:** No puerpério imediato, as mães apresentaram mais queixas para amamentar, problemas nas mamas e dor ao amamentar. No puerpério tardio, não houve diferença em relação à maior ou menor dificuldade. Mães que estavam no puerpério remoto relataram em maior proporção que os filhos tiveram dificuldade em ganhar peso. As variáveis que estiveram associadas à mãe foram: não apresentar queixa para amamentar, parto normal, a criança mamar na primeira hora de vida, mama e tecido mamário saudáveis, estar em aleitamento materno exclusivo, pega adequada, posicionamento correto da puérpera e da criança, entre outras. Observou-se resultado com significância estatística para presença de queixa para amamentar, aspecto alterado das mamas, a criança não ter mamado na primeira hora de vida, pega incorreta, dificuldade no manejo/ajuste do posicionamento e necessidade de retorno ao centro de saúde. **Conclusão:** Puérperas atendidas no ambulatório de amamentação apresentaram mais dificuldades para amamentar no puerpério imediato, referindo queixas, problemas nas mamas e dor.

Palavras-chave: Aleitamento materno; Desmame; Atenção primária à saúde; Período pós-parto; Leite humano.

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Conflict of interests: No.
Authors' contribution: CVB was responsible for developing the research project, collecting and analyzing the data, and writing the manuscript; CDM contributed to developing the research project, collecting the data, and writing the manuscript; ARM, RMMF and AALF provided general guidance on the work, supervising the development of the research project, data analysis, and writing the article.
Data Availability Statement
No research data was used.
Funding: None.
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Received: December 18, 2024; **Accepted:** August 05, 2025
Editor-in-Chief: Renata Mota Mamede Carvallo.
Associate Editor: Leandro Pernambuco.

INTRODUCTION

Breastfeeding (BF) is essential for health promotion, extending beyond nutrition[1]. It is a process that strengthens the emotional bond between mother and child, providing significant benefits for both[2]. For mothers, breastfeeding reduces the risk of breast cancer, aids in uterine involution, and decreases postpartum bleeding[3]. For babies, human milk is a rich source of bioactive molecules that strengthen the immune system, protect against infections, and contribute to healthy organ development, in addition to reducing the incidence of inflammatory, respiratory, and gastrointestinal diseases[4,5].

Furthermore, BF has a positive environmental impact, as it is a renewable food source that does not generate waste or pollution associated with artificial formulas[6,7]. However, despite its benefits, the practice faces challenges that compromise its continuity, with early interruption being one of the main public health problems in Brazil[4].

During the postpartum period, with its intense physical and emotional changes, many women face BF difficulties, such as pain, lack of guidance, and nipple trauma[8,9]. Nipple injuries, such as cracks, abrasions, and ulcers, are among the main factors that hinder BF, especially in the first few days after delivery[9]. These complications can discourage the mother and negatively affect exclusive BF (EBF)[10].

Continuous mother-infant assessment is crucial to identifying and treating these difficulties early. For instance, BF in the first hours of life not only facilitates the newborn's adaptation to extrauterine life but also stimulates the production of oxytocin and prolactin, hormones essential for milk production[11].

Therefore, understanding and addressing the challenges faced in the postpartum period is crucial to ensure that mothers receive the necessary support, promoting the continuity of BF and, consequently, its numerous benefits for the health of the mother and child and for the environment.

This study aimed to characterize the BF difficulties faced during the postpartum period by users of the Vila Maria Health Center's Breastfeeding Clinic, in the Northeast Area of Belo Horizonte, Minas Gerais, Brazil, and to analyze the association of such difficulties with prenatal, maternal, child, and BF data.

METHODS

This cross-sectional, observational study used secondary data from the Vila Maria Health Center's Breastfeeding Outpatient Clinic. It analyzed the medical records of all postpartum women treated at the clinic (n = 269) from August 2019, when the clinic began operating, to July 2022. All individuals involved, or their guardians, signed an informed consent form. The study was approved by the Research Ethics Committees of the Federal University of Minas Gerais (CEP/UFMG) and of the Health Department of Belo Horizonte (CEP/SMSA/BH), under approvals No. 4,952,442 and No. 6,641,768, respectively.

The study included all medical records of postpartum women seen at the BF clinic within the established period. Incomplete medical records were excluded, as were those of postpartum women with medical restrictions on EBF and those of children with contraindications to BF, such as galactosemia.

Data were collected using the clinic's own structured protocol, routinely used in consultations to ensure standardized and reproducible information. This protocol covers information on the mother and assessment of the mother, child, and the dyad.

The identification section gathers data such as the mother's and newborn's names, date of birth, age, education level, family income, address, telephone number, reference health center, Family Health Program team, and the community health agent responsible for monitoring them.

The mother's assessment includes information on the number of pregnancies, prenatal care, number of appointments, BF guidance received, mode of delivery, and any BF-related complaints. The general appearance of the breasts, the appearance of the breast tissue, including the classification of possible lesions (e.g., abrasions, fissures, and ulcerations), and the shape of the nipples are also assessed.

The infant's assessment includes birth data, such as gestational age, birth weight, weight at hospital discharge, current weight, and the 1 and 5-minute Apgar scores. It also verifies whether the newborn was breastfed within the first hour of life, the type of feeding being offered (exclusive, predominant, mixed, supplemented, or artificial BF), and the use of artificial nipples, such as pacifiers, bottles, and silicone nipple shields. The feeding reflexes (rooting and sucking) and protective reflexes (coughing, gagging, and biting) are also observed, as well as the coordination between sucking, swallowing, and breathing, the quality of sucking, the rhythm of feeding, and the presence of noises during feeding. The lingual frenulum is assessed using the Bristol Protocol, which considers aspects such as the appearance of the tongue tip, frenulum attachment, and tongue elevation and projection.

The mother-baby dyad assessment analyzes the mother's BF positioning, the baby's posture in relation to the mother's body, and the latch, considering criteria such as the baby's chin touching the breast, adequate lip sealing, and tongue positioning. All assessments were conducted by the speech-language-hearing pathologist responsible for the outpatient clinic, a professional with over 15 years of experience in maternal and child health.

The postpartum period was classified into three categories: immediate postpartum (up to the 10th postpartum day), late postpartum (from the 11th to the 42nd day), and remote postpartum (after the 42nd postpartum day). In the first stage of the analysis, the postpartum period was the response variable, and the presence or absence of BF-related complaints and the most frequent types of complaints per phase were the explanatory variables. In the next stage, the presence or absence of BF complaints was the response variable, with the following explanatory variables: maternal data (age, education level, family income, prenatal care, mode of delivery, and number of pregnancies), breast data (general appearance, breast tissue appearance, and classification of lesions), child data (weight, Apgar score, feeding and protective reflexes, lingual frenulum assessment, quality of suction, coordination between suction, swallowing and breathing, BF rhythm, noises during feeding, latch, type of feeding, and use of artificial nipples), and the mother's and child's positioning during BF.

The collected data were organized in Microsoft Excel spreadsheets and analyzed using SPSS software, version 25.0. A descriptive analysis was initially performed using the frequency distribution of categorical variables and measures of central tendency and dispersion of continuous variables.

Pearson's chi-square and Fisher's exact tests were used for association analyses, with p-values ≤ 0.05 considered statistically significant. Multivariate analysis was performed

using binary logistic regression after verifying the assumptions for its application, such as the absence of multicollinearity and the adequacy of proportional odds. The variable "breast tissue" was removed from the model because it was collinear with "breast appearance"; the "other" category of " mode of delivery" and the variable "suction" were also excluded for better model fit. Variables with a $p \leq 0.20$ association in the univariate analysis were included in the regression using the backward stepwise method, retaining only those with statistically significant associations at the 5% level. The magnitude of the associations was expressed as odds ratios with their respective 95% confidence intervals.

RESULTS

The study's final sample consisted of 264 postpartum women, as five participants were excluded from the study due to incomplete medical records. Table 1 presents the quantitative study data.

Table 2 shows BF-related complaints, distributed according to the postpartum period. The results show that 51.1% of mothers reported some type of complaint during BF, with BF pain being the most prevalent, followed by breast problems. Difficulty latching was reported by 5.1% (no complaints) and 2.0% (with complaints) in the immediate postpartum period; 2.7% and 5.3% in the late postpartum period; and 4.6% and 4.2% in the remote postpartum period. Choking was observed in 1.4% and 2.0% in the immediate postpartum period; 2.7% and 1.1% in the late postpartum period; and 1.3% and 4.2% in the remote postpartum period.

Table 3 presents the association analysis between BF complaints and prenatal and maternal data. The absence of complaints was statistically significantly associated with the mode of delivery, BF in the first hour of life, healthy breast appearance, and preserved breast tissue.

Moreover, 77.5% of mothers without complaints did not receive prenatal BF guidance, compared to 85.2% of mothers with complaints. Most mothers were adults: 93.0% of those

Table 1. Descriptive measures of age (birth, gestational, and maternal), Apgar, and weight (birth, discharge, and current)

Variables (n = 264)	Mean	SD	Median	Minimum	Q_1	Q_3	Maximum
Age (in days) at assessment	23.26	16.55	19.00	3.00	12.00	29.75	92.00
Gestational age (days)	240.61	53.34	271.00	138.00	162.25	278.00	289.00
Maternal age (years)	28.18	7.02	28.00	14.00	22.00	33.00	45.00
1-minute Apgar	8.25	1.50	9.00	1.00	8.00	9.00	10.00
5-minute Apgar	9.31	0.77	9.00	5.00	9.00	10.00	10.00
Birth weight (grams)	3116.57	550.45	3162.50	1310.00	2857.75	3463.00	4515.00
Weight at discharge (grams)	3008.95	503.43	3042.50	1700.00	2715.00	3305.00	4460.00
Current weight (grams)	3688.39	808.70	3605.00	1890.00	3170.00	4115.00	7040.00

Subtitle: n = number of individuals; SD = standard deviation; Q = quartile

Table 2. Association analysis between breastfeeding complaints and the postpartum period

Complaints	Postpartum period								
	Immediate			Late			Remote		
	No n (%) T: 214(100%)	Yes n (%) T: 50(100%)	p-value	No n (%) T: 74(100%)	Yes n (%) T:190(100%)	p-value	No n (%) T: 240(100%)	Yes n (%) T: 24(100%)	p-value
Difficulty gaining weight									
Yes	12(5.6)	1(2.0)		8(10.8)	5(2.6)		6(2.5)	7(29.2)	
No	202(94.4)	49(98.0)	0.288	66(89.2)	18 (97.4)	**0.006***	234(97.5)	17(70.8)	<0.001
Breast problems									
Yes	12(5.6)	9(18.0)		9(12.2)	12(6.3)		21(8.7)	0(0.0)	
No	202(94.4)	41(82.0)	**0.004***	6 65(87.8)	178(93.7)	0.115	219(91.3)	24(100.0)	0.131
Breastfeeding pain									
Yes	45(21.0)	18(36.0)		21(28.4)	42(22.1)		60(25.0)	3(12.5)	
No	169(79.0)	32(64.0)	**0.025***	53(71.6)	148(77.9)	0.283	180(75.0)	21(87.5)	0.171
Hyperlactation									
Yes	6(2.8)	2(4.0)		2(2.7)	6(3.2)		8(3.3)	0(0.0)	
No	208(97.2)	48(96.0)	0.657	72(97.3)	184(96.8)	0.846	232(96.7)	24(100.0)	0.364
Low milk supply									
Yes	13(6.1)	1(2.0)		3(4.1)	11(5.8)		12(5.0)	2(8.3)	
No	201(93.9)	49(98.0)	0.257	71(95.9)	179(94.2)	0.572	228(95.0)	22(91.7)	0.487

Pearson's chi-square test; *p-value ≤ 0.05

Subtitle: n = number of individuals; % = percentage of individuals; T = total

without complaints and 95.6% of those with complaints. Regarding education, the highest percentages were those with incomplete higher education (49.6% without complaints and 48.9% with complaints). A family income of up to one minimum wage was reported by 50.4% of mothers without complaints and 48.1% of mothers with complaints.

As for the clinical aspect of the breasts, 60 mothers (22.7%) had large and full breasts, 14 (5.3%) had engorged breasts, and 13 (4.9%) had sagging and flaccid breasts. Also, 21 (8.0%) had fissures in both breasts, 18 (6.8%) had bilateral abrasions, eight (3.0%) had a fissure in the left breast with a healthy right breast, five (1.9%) had a fissure in the right breast with a healthy left breast, two (0.8%) had an abrasion in the left breast with a healthy right breast, one (0.4%) had a fissure in the right breast and an abrasion in the left breast, one (0.4%) had an ulceration in the right breast with a healthy left breast, and one (0.4%) had an ulceration in the right breast with a fissure in the left breast.

Table 4 presents the child's and BF assessment data. The absence of complaints was statistically significantly associated with EBF, proper latch and positioning, the non-use of pacifiers or bottles, and the absence of the need for managing and adjustments.

EBF was practiced by 94.6% of mothers without complaints and 77.0% of those with complaints. Latching was considered adequate in 80.6% of mothers without complaints and in only 33.3% of mothers who reported difficulties. The mother's positioning was correct in 94.6% of those without complaints and in 87.4% of those with complaints; the child's positioning was adequate in 77.5% and 40.0%, respectively.

Pacifier use was reported by 24.8% of mothers without complaints, compared to 44.4% of those with complaints. Bottle use was reported in 3.9% and 20.0% of cases, respectively. The use of silicone nipple shields was uncommon: 0.8% among mothers without complaints and 3.7% among those with complaints.

Positioning adjustments or management were necessary for 26.4% of mothers without complaints, a percentage that rose to 79.3% among mothers with complaints. Noises during BF were reported by 13.2% of mothers without complaints and by 20.7% of those with complaints; in addition, 4.6% and 4.4%, respectively, reported occasional noises.

The BF rhythm was adequate for 96.1% of mothers without complaints and 90.4% of those with complaints. Sucking was satisfactory in almost all cases: 100% of mothers without complaints and 98.5% of those with complaints. Sucking-swallowing-breathing coordination was preserved in almost all children (99.2% and 99.3%).

The lingual frenulum test was normal in 94.6% of babies of mothers without complaints and in 90.4% of those with complaints. Referral to another professional was necessary in 3.1% of cases without complaints and in 8.9% of those with complaints. Finally, 21.7% of mothers without complaints and 78.5% of those with complaints returned for follow-up at the health center.

Table 5 presents the initial and final models of the multivariate logistic regression analysis. In the final model, BF complaints were statistically significantly associated with abnormal breast appearance, the child not breastfeeding in the first hour of life, poor latch, difficulty managing/adjusting positioning, and need

Table 3. Association analysis between breastfeeding complaints and prenatal and maternal data

Variables	Breastfeeding complaints		p-value
	No	Yes	
	n (%)	n (%)	
Prenatal care			
No	1 (0.8)	0 (0.0)	0.489[1]
Yes	128 (99.2)	135 (100.0)	
Mode of delivery			
Vaginal	52 (40.3)	48 (35.6)	**0.017***[2]
Natural	43 (33.3)	28 (20.7)	
Cesarean	33 (25.6)	56 (41.5)	
Other	1 (0.8)	3 (2.2)	
Number of pregnancies			
1	42 (32.6)	57 (42.2)	0.105[1]
2 or more	87 (67.4)	78 (57.8)	
General appearance of the breasts			
Healthy	105 (81.4)	72 (53.3)	
Abnormal	24 (18.6)	63 (46.7)	**0.001***[1]
Appearance of the nipples			
Protruded	115 (89.1)	93 (68.8)	0.963[1]
Flat/short/inverted	114 (10.9)	42(31.2)	
Appearance of breast tissue			
Normal	126 (97.7)	77 (57.0)	**0.001***[1]
Abnormal	3 (2.3)	58 (43.0)	
Breastfed in the 1st hour of life			
No	14 (10.9)	32 (23.7)	**0.006***[2]
Yes	115 (89.1)	103 (76.3)	

[1]Fisher's exact test; [2]Pearson's chi-square test; *p-value ≤ 0.05
Subtitle: n = number of individuals; % = percentage of individuals

Table 4. Association analysis between breastfeeding complaints and child and breastfeeding assessment data

Variables	Breastfeeding complaints		p-value
	No n (%) T:129(100%)	Yes n (%) T:135(100%)	
Type of feeding			
Exclusive breastfeeding	122 (94.6)	104 (77.0)	**0.001***
Predominant, mixed, complemented, or artificial breastfeeding	7 (5.4)	31 (23.0)	
Latch			
Adequate	104 (80.6)	45 (33.3)	**0.001***
Inadequate	25 (19.4)	90 (66.7)	
Mother's positioning			
Adequate	122 (94.6)	118 (87.4)	**0.043***
Inadequate	7 (5.4)	17 (12.6)	
Child's positioning			
Adequate	100 (77.5)	54 (40.0)	**0.001***
Inadequate	29 (22.5)	81 (60.0)	
Silicone intermediate			
No	128 (99.2)	130 (96.3)	0.110
Yes	1 (0.8)	5 (3.7)	
Positioning management/adjustment			
No	95 (73.6)	28 (20.7)	**0.001***
Yes	34 (26.4)	107 (79.3)	
Return to the Health Center			
No	101 (78.3)	29 (21.5)	**0.001***
Yes	28 (21.7)	106 (78.5)	

Pearson's chi-square test *p-value ≤ 0.05
Subtitle: n = number of individuals; % = percentage of individuals; T = total

to return for follow-up at the health unit. The mothers with abnormal breast appearance were 3.6 times more likely to report BF complaints than those with healthy breasts. Newborns who did not breastfeed in the first hour of life were 2.18 times more likely to have BF complaints. Newborns with poor latch were 2.34 times more likely to have complaints, while postpartum women who needed management or positioning adjustments were 2.73 times more likely to report difficulties. The need to return to the health unit represented a 6.02-fold increase in the odds of reporting complaints compared to those who did not need to return.

DISCUSSION

The study's main findings indicated that mothers treated at the Vila Maria Health Center's Breastfeeding Clinic experienced the most BF difficulties during the immediate postpartum period, with complaints, breast problems, and BF pain. The late postpartum period was more stable. On the other hand, a greater proportion of mothers in the remote postpartum period reported that their children had difficulty gaining weight.

In the univariate analysis, several variables were associated with the mother's lack of BF difficulties: mothers who had a normal birth, the child being breastfed in the first hour of life, healthy breast and breast tissue, mothers on EBF, adequate latch, the mother's and child's correct positioning, not using a pacifier or bottle nipple, and not having had difficulty in managing/adjusting the positioning.

The infants who arrived at the BF clinic were born without complications and, at approximately 19 days of age (median), had already regained their birth weight on the day of the first consultation. Analysis of descriptive measures revealed that the newborns' mean gestational age was approximately 240.61 days, indicating that the majority were full-term infants, although the study included some preterm infants. Recent studies indicate that prematurity is associated with greater BF challenges due to immature oral reflexes and difficulties in sucking-swallowing-breathing coordination[12].

The participating mothers' mean age was 28 years and 18 months. This agrees with the literature, which indicates that younger mothers tend to face greater BF difficulties[13].

The mean 1 and 5-minute Apgar scores were 8.25 and 9.31, respectively, indicating good neonatal vitality. This finding favors the early BF initiation, as recommended by the World Health Organization (WHO). Regarding weight, a physiological loss was observed between birth (3116.57 g) and hospital discharge (3008.95 g), a phenomenon expected in the first days of life. Subsequently, recovery to a mean weight of 3688.39 g reflected adequate growth, agreeing with studies that associate rapid neonatal weight recovery with successful BF[14].

These findings reinforce the need for adequate support for mothers, especially for premature infants and younger mothers, aiming to promote EBF and the healthy growth of newborns.

The results of this study showed that a significant number of mothers (51.1%) presented BF complaints, with BF pain being the most reported, followed by breast problems (sores, cracks, and breast engorgement). Nipple trauma is one of the main

Table 5. Initial and final binary logistic regression model

Variables	Breastfeeding complaints					
	Initial model			Final model		
	OR	95% CI	p-value	OR	95% CI	p-value
Mode of delivery						
Vaginal	1	1	1	----	----	----
Natural	0.747	0.389-1.433	0.308	----	----	----
Cesarean	1.702	0.091-3.185	0.097	----	----	----
Number of pregnancies						
1	1.536	0.888-1.656	0.125	----	----	----
2 or more	1	1	1	----	----	----
Appearance of the breasts						
Healthy	1	1	1	1	1	1
Abnormal	3.559	1.997-6.342	≤0.001	3.600	2.049-6.326	≤0.001
Breastfeeding in the 1st hour of life						
No	2.064	0.974-4.376	0.059	2.189	1.075-4.457	0.031
Yes	1	1	1	1	1	1
Type of feeding						
Exclusive breastfeeding	1	1	1	----	----	----
Predominant, mixed, or complementary breastfeeding	1.346	0.320-5.661	0.685	----	----	----
Neonatal Tongue Screening Test						
Normal	1	1	1	----	----	----
Abnormal	0.354	0.074-1.690	0.193	----	----	----
Rhythm						
Adequate	1	1	1	----	----	----
Inadequate	0.480	0.128-1.795	0.276	----	----	----
Latch						
Adequate	1	1	1	1	1	1
Inadequate	2.365	0.990-5.646	0.053	2.347	1.081-5.096	0.031
Mother's positioning						
Adequate	1	1	1	----	----	----
Inadequate	0.661	0.212-2.058	0.475	----	----	----
Child's positioning						
Adequate	1	1	1	----	----	----
Inadequate	1.013	0.413-2.483	0.978	----	----	----
Pacifier						
No	1	1	1	----	----	----
Yes	1.405	0.696-2.838	0.343	----	----	----
Bottle						
No	1	1	1	----	----	----
Yes	1.541	0.315-7.543	0.594	----	----	----
Silicone intermediate						
No	1	1	1	----	----	----
Yes	1.027	0.099-10.616	0.982	----	----	----
Positioning management or adjustment						
No	1	1	1	1	1	1
Yes	2.995	1.211-7.406	0.018	2.735	1.232-6.073	0.013
Referral						
No	1	1	1	----	----	----
Yes	2.686	0.417-17.282	0.298	----	----	----
Return to the health center						
No	1	1	1	1	1	1
Yes	5.878	2.826-12.229	<0.001	6.021	3.092-11.724	0.001

Pearson's Chi-square test

Subtitle: OR = odds ratio; CI = confidence interval

breast problems that directly influence BF and is identified as one of the main risk factors for weaning[15]. It can cause pain, and slow healing may hinder BF continuity[16]. The causes of pain and discomfort in mothers can and should be prevented, highlighting the importance of health professionals guiding them during prenatal and immediate postpartum periods and stimulating BF as early as possible to help mothers practice the technique correctly and painlessly[17,18].

As observed in this study, mothers in the late postpartum period were less likely to experience BF difficulties, as they had fewer complaints and reported no difficulties with the infant's weight gain. This finding may be thanks to solving, within 10 days of birth, the problems arising in the immediate postpartum period. BF is a mother-child process, and experience brings greater security and peace of mind during this period[19,20]. This finding also highlights the importance of the specialized professionals' monitoring in the immediate postpartum period, as this reduces the risk of early weaning and weight loss, the main complaint reported during the remote postpartum period in this study.

The mode of delivery was also significantly related to BF difficulties, which were less likely to occur among mothers who had a vaginal delivery. A similar result was found in a study in which cesarean delivery was a predisposing factor to low BF self-efficacy scores because of the mother's postpartum pain and discomfort from the surgery, making it difficult to position the child[20,21]. Moreover, cesarean delivery is a risk factor for delayed lactogenesis. In this case, it is important to emphasize that early breast stimulation and sucking by the newborn are important to increase milk production[21].

Other researchers[21-23] observed higher maternal self-efficacy scores among mothers who breastfed in the first hour of life and concluded that breastfeeding newborns early should be a routine in maternity hospitals. They recognized the importance of the institution holding the Baby-Friendly Hospital title as a protective factor against delay in initiating BF[21].

Breast problems can also compromise successful BF. A Brazilian study identified a very high incidence rate of nipple injuries in maternity wards, ranging from 43.6% to 30.31%[24]. In a prospective study conducted in Malaysia, BF difficulties due to breast problems, such as nipple injury and pain, were an important predictor of discontinued EBF[22]. The anatomical characteristics of the breasts (e.g., inverted, not flat enough, and excessively long nipples) should be emphasized, as they can affect the child's sucking[25]. The present study observed that healthy breast appearance, healthy breast tissue, and EBF were contributing factors to the absence of BF difficulties.

The absence of BF difficulties in this study was associated with adequate latching, correct mother's and newborn's positioning, and the absence of difficulties in managing and adjusting positioning. These findings are consistent with the literature, which indicates that the child's incorrect latching and inadequate positioning during BF are among the main factors that trigger breast problems[25,26]. Nipple-areola wounds can be a gateway for bacteria, leading to the development of infections, such as mastitis and/or breast abscess, causing pain and discomfort, and interrupting BF[26]. In a case-control study with women admitted to a university hospital in the state of São Paulo, the mothers of children with a twisted neck, chin away from the breast, and inward lower lip were 1.9 times, 2.9 times, and 4.2 times more likely, respectively, to have some nipple trauma during BF than those without these characteristics[25].

The studies also highlighted the importance of knowing the correct BF technique, since the mother's and child's adequate positioning and the child's effective latch help prevent BF pain and nipple trauma, reducing the probability of interrupting BF due to complications[25,26].

The guidance on the child's proper latching and positioning at the breast was considered a protective factor against nipple trauma[27]. The mother's BF position is also important in this process, as sitting or lying down properly reduces back pain and discomfort, which directly affects the mother-baby dyad. Therefore, guidance on their correct positioning helps to minimize BF difficulties[28].

These results highlight the importance of a BF assessment to help identify problems with the BF technique, especially those related to inadequate latch, the child's response to contact with the breast, and problems with the breast.

Another factor that leads to early weaning is the child's use of artificial nipples, such as pacifiers and bottles[28]. Bottle-feeding is defined as a nutritive sucking habit when it is used for artificial BF[29]. The pacifier can be considered a non-nutritive sucking device, being used primarily to calm the child[29]. Using a pacifier or bottle during the first year of life can compromise the development of the child's stomatognathic system[30]. This occurs because, during nutritive sucking from the breast, the orofacial muscle structures relax and contract harmoniously. However, nutritive feeding from a bottle puts pressure on the structures, overloading them, with possible consequences such as a reduced nasal base, resulting in respiratory and occlusal complications[30]. Moreover, pacifier use can trigger a false neural condition in which the child may continue sucking for long without receiving nutrition, called neural satiety[30].

A multivariate logistic regression model was used because all variables associated in the univariate analysis may be strongly associated with and dependent on each other. This regression revealed that abnormal breast appearance, failure to breastfeed in the first hour of life, poor latch, difficulty in managing/adjusting positioning, and the need to return to the health center were associated with BF complaints.

The chance of having BF complaints was 3.6 times higher in mothers who had breast problems, 2.1 times higher in children who did not breastfeed in the first hour of life, 2.3 times higher in those who did not have an adequate latch, 2.7 times higher in mothers who needed positioning management/adjustment, and 6.0 times higher in mothers who needed to return to the health center.

Breast problems cause pain and discomfort and can be a source of BF stress. They often make it impossible to continue EBF[19], and an incorrect latch was cited as one of its causes[20]. Studies show that BF in the first hour of life has a protective effect due to the intestinal colonization of saprophytic bacteria found in breast milk and the bioactive immunological factors present in maternal colostrum[22,24]. Mothers who required some type of management and returned to the health center had difficulties and needed another appointment for appropriate adjustments.

The data in this study outline a profile of postpartum women assisted at a health center in an area of Belo Horizonte regarding their complaints in the three postpartum periods (immediate,

late, and remote), observing the factors that interfere with EBF continuation.

Overcoming BF obstacles depends on many important factors, including the training of health professionals and services to support women in their decision to breastfeed their children. It is essential to promote BF, especially in the care of pregnant women, by offering support and guidance. Information and interventions should provide mothers with opportunities to acquire practical breastfeeding skills, minimizing initial difficulties.

A limitation of the study is the difficulty mothers face in returning to the health center. Those with and without BF difficulties often do not return there due to financial or transportation problems or because they have no one to care for their other children. Monitoring these women would help better characterize the difficulties they face. Further research is needed on this topic.

CONCLUSION

Postpartum women seen at the Vila Maria Health Center's Breastfeeding Clinic report more BF complaints in the immediate postpartum period, particularly breast problems and BF pain. Several factors were associated with BF complaints: abnormal breast appearance, the child not breastfeeding within the first hour of life, poor latch, difficulty managing/adjusting positioning, and the need to return to the health center.

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