

MATERNAL FACTORS AND EARLY WEANING FROM EXCLUSIVE BREASTFEEDING

Atores maternos e o desmame precoce do aleitamento materno exclusivo

Factores maternos y destete temprano de la lactancia materna exclusiva

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ABSTRACT

Objective: Identify maternal factors related to early weaning from exclusive breastfeeding (EBF). **Method:** cohort study, with data collected 24 hours and six months after delivery. In the analysis used descriptive and inferential statistics. **Results:** 94 women with an average age of 26 years participated, most of them with completed high school, paid occupation, multiparous, without harmful habits or use of continuous medication. Still, most started prenatal care before 12 weeks of gestation, had seven or more consultations, but did not receive guidance on BF, did not perform it in the delivery room or in the first hour of life; presented problems related to breastfeeding in the hospital and at home and more than half (57.4%) interrupted BF early. Having performed EBF on a previous child was a protective factor against early weaning. **Conclusion:** the characteristics of the mother and the assistance to the pregnant-puerperal period were not associated with early weaning.

Descriptors: Breast feeding, Weaning, Infant.

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RESUMO

Objetivo: Identificar os fatores maternos relacionados ao desmame precoce do aleitamento materno exclusivo. **Método:** estudo tipo coorte, com dados coletados 24 horas e seis meses após o parto. Na análise utilizada estatística descritiva e inferencial. **Resultados:** participaram 94 mulheres com idade média de 26 anos, maioria com ensino médio completo, ocupação remunerada, múltipara, sem hábitos nocivos ou uso de medicação contínua; iniciou o pré-natal antes de 12 semanas de gestação, realizou sete ou mais consultas, mas não recebeu orientação sobre aleitamento materno, não o executou na sala de parto e nem na primeira hora de vida; apresentou problemas relacionados a amamentação no hospital e no domicílio e mais da metade (57,4%) interrompeu o aleitamento precocemente. Ter realizado aleitamento materno exclusivo em filho anterior constituiu fator de proteção ao desmame precoce. **Conclusão:** as características da mãe e da assistência ao período gravídico-puerperal não apresentaram associação com desmame precoce.

Descritores: Aleitamento materno, Desmame precoce, Lactente.

RESUMEN

Objetivo: Identificar los factores maternos relacionados con el destete temprano de la lactancia materna exclusiva (LME). **Método:** estudio de cohorte, con datos recolectados 24 horas y seis meses después del parto. En el análisis se utilizó estadística descriptiva e inferencial. **Resultados:** participaron 94 mujeres con edad promedio de 26 años, la mayoría con bachillerato completo, ocupación remunerada, múltiparas, sin hábitos nocivos ni uso de medicación continua. Aún así, la mayoría inició atención prenatal antes de las 12 semanas de gestación, tuvo siete o más consultas, pero no recibió orientación sobre LM, no la realizó en la sala de partos ni en la primera hora de vida; presentaron problemas relacionados con la lactancia materna en el hospital y en el hogar y más de la mitad (57,4%) interrumpieron la lactancia materna de manera temprana. Haber realizado la LME en un niño anterior fue un factor protector contra el destete temprano. **Conclusión:** las características de la madre y la asistencia al período gestante-puerperal no se asociaron con el destete precoz.

Descriptorios: Lactancia materna, Destete, Lactante.

INTRODUCTION

According to the World Health Organization (WHO), all babies should be fed human milk for the first six months of life. During this period, no other liquid or solid should be offered, with the exception of drops / syrups of vitamins, minerals, or medicines.¹ Worldwide data indicate that in developing countries, only 37% of children receive exclusive breastfeeding (EBF) by the age of six months.² In Brazil, this indicator is improving, as its prevalence increased 42.8 percentage points between 1986 and 2020, from 2.9% to 45.7%.³

It is noteworthy that the global costs of not having breastfeeding have been estimated at \$341.3 billion annually, with estimates of \$1.1 billion for the treatment of diarrhea, pneumonia, and type 2 Diabetes Mellitus. Furthermore, economic losses related to future earnings not generated by 98,943 mothers who will die prematurely is estimated at \$1.26 billion.⁴ It is noteworthy that for women, breastfeeding also contributes to reducing the risk of postpartum hemorrhage, as well as helping to prevent

depression and deaths from breast and ovarian cancer.⁴

However, establishing and especially maintaining lactation is often a great challenge. This is because early weaning is related to the family context in which the mother and child are inserted, the breastfeeding experiences with previous children, breast problems, beliefs, psychological, family, and social aspects.⁵ It is also noteworthy that breastfeeding is not only an instinctive act, and it often needs to be learned to be prolonged successfully, and although some mothers find it easy to breastfeed, others find it difficult and face problems that prevent successful breastfeeding.⁶

Thus, investigating the maternal factors that interfere in this process contributes to the reflection of health professionals on their practices related to breastfeeding and to the implementation of strategies to encourage the maintenance of exclusive breastfeeding. Thus, the present study aimed to identify the maternal factors related to early weaning from exclusive breastfeeding.

METHODS

This is an observational, analytical, cohort study, carried out from a matrix study clipping, conducted in the city of Maringá, Paraná with the objective of assessing maternal weight retention in the puerperium. The population was made up of mothers initially approached in the room together in the two hospitals that deliver babies through the Unified Health System (SUS) in the city - one with certification of "Iniciativa Hospital Amigo da Criança" and the other with its own program entitled "Amigo da Criança".

The design and description of the study took into account the guidelines of the Strengthening the Reporting of Observational studies in Epidemiology (STROBE).⁷ Only mothers who could be visited, until December 2018, in their homes six months after delivery were included in the present study. The inclusion criteria adopted in the matrix study and consequently in this one were: residing in the municipality; delivery that occurred more than 24 hours ago; current term pregnancy (≥ 37 weeks) and being with EBF in the hospital. Mothers of twins and those who were separated from the child after starting breastfeeding were excluded.

Data were collected at two time points, during hospital admission for delivery and six months after. The first moment occurred between March and June 2018, through active search conducted on alternate days in the two hospitals and the second, occurred between September and December 2018, through home visits. In both moments, individual interviews were conducted, with the application of a structured questionnaire. They lasted an average of 35 and 50 minutes, respectively. It is noteworthy that six months after birth, mothers were informed that "exclusive" breastfeeding means not offering any other type of milk, water, juice, or tea.

Dichotomous variables collected at the first moment were analyzed regarding sociodemographic characteristics

(age, race/color, education, occupation, marital status, financial status, and habits such as smoking and alcoholic beverage use) and current pregnancy (pregnancy planning, risk classification, complications, time of prenatal care initiation, number of consultations, gestational weight gain and guidance on breastfeeding during prenatal care, and route of delivery); and variables collected at home regarding breastfeeding (EBF in previous children, EBF in the delivery room, EBF in the first hour of life, problems to breastfeed in the hospital, EBF on the first day at home, problems to breastfeed at home).

For analysis, the data were double entered into an Excel spreadsheet and analyzed using the statistical software SPSS® version 20.0, using the Chi-square test to calculate the p-value and bivariate analysis to compare proportions.

In the development of the study, the guidelines recommended by Resolution 466/2012 of the National Research Ethics Committee - CONEP were respected, and its project was approved by the Ethics Committee on Research with Human Subjects of the institution (Opinion No. 4,426,302). All participants signed, at both moments of data collection, the Informed Consent Form in two copies.

RESULTS

The study included 94 mothers with a mean age of 26 years, 54 (57.4%) of whom had stopped exclusive breastfeeding early (before six months). It is noteworthy that most of them were multiparous n 65 (69.1%), had no comorbidities and/or used continuous use medication before pregnancy n 72 (76.6%) and most of them had prenatal care in the Basic Health Units of the city n 93 (98.9%). Table 1 shows the sociodemographic characteristics according to the time of EBF.

Table 1 - Sociodemographic factors of nursing mothers, Maringá - PR, Brazil, 2020 (N=94)

Variable	Early Weaning			Value-p
	Yes n (%)	No n (%)	Total N	
Age				
≥ 24 years old	23 (65,7)	12 (34,3)	35	0,27
≤ 25 years old	32 (54,2)	27 (45,8)	59	
Skin Color				
Self-reported White/Yellow	25 (56,8)	19 (43,2)	44	0,75
Self-reported brown/black	30 (60,0)	20 (40,0)	50	
Education				
Incomplete High School	21 (51,2)	20 (48,8)	41	0,20
Complete High School	34 (64,2)	19 (35,8)	53	
Occupation				
Paid	37 (64,9)	20 (35,1)	57	0,11
Unpaid	18 (48,6)	19 (51,4)	37	
Marital status				
With partner	48 (57,1)	36 (42,9)	84	0,43
No partner	7 (70,0)	3 (30,0)	10	
Abep Classification				
A and B	17 (60,7)	11 (39,3)	28	0,77
C, D and E	38 (57,6)	28 (42,4)	66	
Smoker				
Yes	5 (41,7)	7 (58,3)	12	0,20
No	50 (61,0)	32 (39,0)	82	
Consumption of alcoholic beverages				
Yes	5 (55,6)	4 (44,4)	9	0,85
No	50 (58,8)	35 (41,2)	85	

Source: survey data, 2018.

Table 2 presents the distribution of the obstetric data referring to the studied pregnancy.

Table 2 - Obstetric data, Maringá - PR, Brazil, 2020 (N=94)

Variable	Early Weaning			Value-p
	Yes n (%)	No n (%)	Total N	
Planned pregnancy				
Yes	19 (51,4)	18 (48,6)	37	0,25
No	36 (63,2)	21 (36,8)	57	
Delivery route				
Cesarean section	43 (74,1)	15 (25,9)	58	0,68
Vaginal Delivery	28 (77,8)	8 (22,2)	36	
Pregnancy classification				
Usual and Intermediate Risk	42 (61,8)	26 (38,2)	68	0,30
High risk	13 (50,0)	13 (50,0)	26	
Pregnancy complications				
Yes	18 (54,5)	15 (45,5)	33	0,56
No	37 (60,7)	24 (39,3)	61	
Gestational age 1st consultation				
≥ 12 weeks	49 (58,3)	35 (41,7)	84	0,91
≤ 13 weeks	6 (60,0)	4 (40,0)	10	
Number of consultations				
≤ 6	5 (71,4)	2 (28,6)	7	0,47
> 7	50 (57,5)	37 (42,5)	87	
Gestational weight gain				
Suitable	24 (58,5)	17 (41,5)	41	0,99
Excessive	31 (58,5)	22 (41,5)	53	
Pre-natal breastfeeding orientation				
Yes	14 (45,2)	17 (54,8)	31	0,65
No	41 (65,1)	22 (34,9)	63	

Source: survey data, 2018.

In the case of 55 mothers who stopped early breastfeeding, this occurred with the provision of water n 49 (88.9%), tea and/or juice n 42 (75.9%) and infant formula n 45 (48.1%). It is noteworthy that all mothers who discontinued exclusive breastfeeding offered a bottle to the child and n 20 (36.7%) a pacifier. Table 3 shows the distribution of some breastfeeding characteristics of the children under study.

Table 3- Characterization of breastfeeding, Maringá - PR, Brazil, 2020 (N=94)

Variable	Early Weaning			Value-p
	Yes n (%)	No n (%)	Total N	
EBF on previous children*				
Yes	8 (33,3)	16 (66,7)	24	0,07
No	18 (72,0)	7 (28,0)	25	
BF in the delivery room				
Yes	10 (76,9)	3 (23,1)	13	0,97
No	62 (76,5)	19 (23,5)	81	
BF in the first hour				
Yes	19 (79,2)	5 (20,8)	24	0,73
No	53 (75,7)	17 (24,3)	70	
Breastfeeding problems - hospital				
Yes	8 (66,7)	4 (33,3)	12	0,27
No	66 (80,5)	16 (19,5)	82	
EBF on the first day at home				
Yes	62 (77,5)	18 (22,5)	80	0,28
No	9 (64,3)	5 (35,7)	14	
Breastfeeding problems - home				
Yes	24 (72,7)	9 (27,3)	33	0,51
No	48 (78,7)	13 (21,3)	61	

*Multiparous n: 49

Source: survey data, 2018.

Of the 12 mothers who presented breastfeeding problems in the hospital, nine (75.0%) were related to the latch and suction by the newborn and three (24%) due to the anatomy of the nipples. At home, of the 33 women, 22 (66.7%) reported breast trauma, nine (27.2%) breast engorgement and two (6.1%) mastitis.

DISCUSSION

The limits of the study refer to the possible error of the recall background regarding the mothers' answers, since these were facts that occurred at a time of many transformations and discoveries, in addition to the fact that the results of this research cannot be generalized to the entire population, due to the inclusion criteria of the study.

The data shows that early weaning from EBF in the first six months occurred in more than half of the participants and the factors identified are subject to change, which

reinforces that the success of breastfeeding is not an exclusive responsibility of the woman but is shared with the implementation of strategies for the promotion, protection, and support of breastfeeding. Therefore, the importance and the need to combine educational strategies since prenatal care that offer support for the maintenance of exclusive breastfeeding and that take these factors into account is highlighted.⁸

The sociodemographic factors indicate that early weaning occurred in women with a mean age of 26 years, complete high school education, and paid occupation, i.e., women in the labor market. These findings can be supported by the results of a study conducted in Curitiba, PR, in which the mother's routine with the child proved to be paramount for the maintenance of breastfeeding, identifying that nursing mothers were able to maintain breastfeeding due to the fact that they worked outside the home; however, the difficulty found was to maintain exclusive breastfeeding.⁹

Early weaning often occurs because mothers have to return to work before the age of six months, which ratifies the existing fragility for maintaining exclusivity and the need to expand these public policies.⁹ Since the benefits of this practice impact on intersectoral issues. In contrast to the data presented, a study carried out in the joint housing with mothers who had previous children born in the same institution in the interior of São Paulo found that the introduction of formula was more frequent among women with no employment relationship than among those with formal jobs.¹⁰ However, international research points out that the estimated cost of feeding a child with an economical brand of infant formula in the first two years of life would cost on average more than 6.1% of a family's wages, and the financial contribution of the wife for this practice is essential.⁴

More than half of the participants had not performed EBF until six months of life in their previous children, which points out that the number of children can be seen as a relevant aspect because it is closely related to previous experience with breastfeeding and is justified by the success of breastfeeding other children. This is because, in cases of failure, the fears and anxieties generated by the previous experience can negatively interfere in the breastfeeding of the next child.¹¹ However, the positive experiences of breastfeeding become a motivating factor for the mother, who feels able to provide the best food for her child and re-signifies the practice of lactation as a process of intense interaction with the child, which strengthens the self-confidence and brings satisfaction to the woman.¹²

Most participants presented positive characteristics for the maintenance of EBF, such as not being smokers, alcoholics, and not presenting comorbidities and/or use of continuous medication; however, early weaning was significant. This is often due to the difficulty that the woman finds to adapt to this new practice, for facing a

routine that is not what was expected or that she was not sufficiently prepared to face adversities. This is because EBF constitutes a subsistence activity for the child, since it comes solely from the mother's breast, which entails meeting the child's constant demand. Thus, it can generate a sense of obligation and deprivation of the fulfillment of her wishes, due to the intense routine of breastfeeding her child, which can sometimes be seen as discouraging.¹²

The obstetric data indicate that the prenatal care of most women occurred in the Basic Health Unit, with the first visit before 12 weeks and at least seven medical consultations, following the requirements recommended by the Paranaense Mother Program.¹³ It should be noted that both the early initiation of prenatal care and the adherence to its monitoring are important factors for the development of educational activities. In this sense, a study conducted with pregnant women indicated that educational interventions based on maternal self-efficacy favor the rates of maintenance of exclusive breastfeeding.¹⁴

However, there are numerous challenges for the practice of educational activities effectively, since actions to promote breastfeeding are still carried out punctually and in a fragmented way. Therefore, it is essential to reorganize the assistance so that it contemplates the continuity of actions to promote breastfeeding throughout the assistance provided to both mother and child.¹⁵

It is also noteworthy that factors related to the delay in the initiation of breastfeeding can be linked to the mothers' lack of information regarding its importance.¹⁶ Thus, educational activities must be developed in all stages of the pregnancy-puerperal cycle so that the woman can live this moment in a positive way, have fewer complications, and be more successful in caring for the child and breastfeeding.¹⁷ However, a study conducted with 276 women, which aimed to compare the duration of EBF among mothers who received guidance on breastfeeding and those who did not, identified a low adherence to EBF in the first semester of life, regardless of whether the participants had or had not received guidance for this practice.¹¹ This fact reiterates the need to reflect on the strategies used in the provision of guidance, since when they do not consider the particularities of the different contexts experienced, they tend not to impact on adherence and maintenance.

Another point to be problematized regarding the immediate start of breastfeeding is the delivery route. The results of this study corroborate those of a research conducted in Saudi Arabia, which found that mothers who underwent cesarean delivery were 1.42 times more likely to not breastfeed during the first hour of the child's life and to remain in EBF, when compared to mothers with vaginal delivery.¹⁶ In this sense, a study conducted in the interior of São Paulo that consulted medical records and conducted interviews found that children born by cesarean section were 13 times more likely not to experience skin-to-skin contact at birth, which led to a higher risk of not

breastfeeding in the first hour of life and, consequently, to adverse events such as cardiorespiratory failure to stabilize at birth, the need for hospitalization in the intensive care unit, in addition to early weaning and difficulties in the breastfeeding process.¹⁸

The non-performance of breastfeeding in the delivery room and in the first hour of life by most women in the study contradicts the purpose of the study sites to favor the implementation of actions for breastfeeding (IHAC e Programa Amigo do bebê). It is noteworthy that the practice of breastfeeding in the first hour of life is directly related to its success, because the fact that the mother touches the child provides hormonal discharge that favors lactation.¹ Moreover, the first hours of a newborn's life is considered a critical window to determine lactation and provide support to mothers. The World Health Organization and the United Nations Children's Fund have encouraged maternity hospitals to develop activities that support breastfeeding and, to this end, they propose the Ten Steps for Successful Breastfeeding, which emphasize the importance of informing all pregnant women about the advantages and management of breastfeeding, helping mothers initiate it within the first half hour after birth, showing them how to breastfeed and how to maintain lactation, and encouraging free demand.¹

Among the main breastfeeding problems presented in the hospital, most were related to latching and sucking, which consequently reflected in the biggest problem presented at home, which was breast trauma. This result highlights the need for care actions to be planned and strengthened at different points of the care network, favoring the continuity of actions and the prevention of complications that can interfere with EBF. The interurrences reported are presented as a phenomenon specific to lactation, in which some mothers already expect to experience them and especially to bear them; however, it is noteworthy that the pain when breastfeeding is referred to as a negative experience, since the nursing mother needs to resign herself to the pain to ensure her child's nutrition.¹²

The WHO points out that receiving guidance for lactation at the beginning of the process is a key factor to maintain breastfeeding, and professionals must provide support and necessary information, in addition to directing practices that minimize the difficulties in breastfeeding as a way to enable them to breastfeed and prevent early weaning.¹ A research conducted in southern Brazil found that breastfeeding has not been a priority for health teams because they have not provided proper guidance and educational practices on breastfeeding, not using the services for the transmission of knowledge that make women able to satisfactorily breastfeed their children.¹⁷

It is worth mentioning that the offer of water, teas, juices, and milk from other sources is considered commonplace among the population and strongly rooted in Brazilian culture.¹⁹ Moreover, the offer of these liquids is not

characterized by the population as a factor for breaking EBF, which suggests that the concept of exclusive breastfeeding is still not well understood, that they associate milk as a food to satisfy hunger and the other used to hydrate it.¹⁰ A study in Rio Grande do Sul, Brazil, investigated the mother's knowledge about breastfeeding and introduction of food and the difficulties experienced in the rooming-in and found that 45% had no knowledge about the meaning of EBF, 35% knew that they could not offer water/teas and/or other foods and that it should be done until the baby is six months old.²⁰

Furthermore, the fact that some women perceive that the amount of milk produced can define the success of breastfeeding,¹² points out that behavior can be influenced not only by intellectual knowledge, but also by beliefs and cultures present in the reality in which the woman is inserted.

CONCLUSION

More than half of the women in this study stopped exclusive breastfeeding early, but no significant association was observed between this fact and the mother's characteristics and the assistance during pregnancy and postpartum period. Having had exclusive breastfeeding in a previous child was a protective factor against early weaning.

It is noteworthy that the majority reported not having received orientation on breastfeeding in the prenatal period, did not do it in the delivery room or during the child's first hour of life, and presented problems related to breastfeeding in the hospital and at home. These data are indicative of a failure in the actions recommended for the promotion, protection, and support of breastfeeding, which reiterates the importance of health professionals reflecting on and mainly implementing the strategies proposed by the Ministry of Health, since they are knowledge and techniques consolidated in the scientific community and that if correctly applied result in a successful and quality EBF.

The main limitation of the study refers to the possibility of failure in the mother's memory, since the situations to be remembered occurred in a context of many transformations and discoveries. Thus, it is suggested that in future research the data be collected bimonthly or at least quarterly.

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