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ORIGINAL ARTICLE

INFLUENCE OF PRENATAL, DELIVERY AND PUERPERIUM CHARACTERISTICS ON EXCLUSIVE BREASTFEEDING IN THE FIRST SIX MONTHS POSTPARTUM

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ABSTRACT

Objective: to verify the association of prenatal, delivery and puerperium characteristics with the prevalence of exclusive breastfeeding (EBF) in puerperal women treated at the Unified Health System of Santa Catarina. **Method:** prospective cohort study with 969 puerperal women from the state of Santa Catarina, Brazil. Sociodemographic and prenatal, delivery and puerperium information were collected in two moments: at the hospital, immediately after delivery, and by telephone, six months postpartum. Crude and adjusted logistic regression analyses were performed to verify the association of prenatal, delivery and puerperium variables with EBF, controlled for maternal characteristics. **Results:** variables that decreased the chance of maintaining EBF until 6 months of age were: pacifier use (64%), bottle use (75%) and receiving information about the importance of EBF in consultations (30%). On the other hand, babies who breastfed in the first hour of life (44%) and who were born vaginally (48%) were more likely to breastfeed up to 6 months of life. **Conclusion:** factors since prenatal care influenced EBF; however, there is an important association of factors involved in postpartum.

Keywords: Pregnant women. Maternity. Women's Health. Grounded Theory. Evaluation of Health Programs and Projects.

INTRODUCTION

Breastfeeding can begin immediately after birth and, according to the recommendations of the World Health Organization (WHO) and the Ministry of Health, and should remain exclusively until six months of age, and then be maintained in a complementary way until two years or more[1]. Breastfeeding, in addition to nourishing the baby, is an important stage of bonding between mother and child; it promotes health protection for the infant's immune development, avoiding future morbidities. Breastfeeding also has numerous benefits for the mother, by promoting lower risks of postpartum hemorrhage, rapid recovery of body weight and reducing the incidence of ovarian and breast cancer[2].

Despite all its benefits, globally, only 40% of babies under six months are exclusively breastfed[3]. In Brazil, when comparing data from 2009 and 2020, there was little improvement in the indicators of exclusive breastfeeding (EBF): the prevalence of EBF in the sixth month of life went from 41% to 45% in this period[4]. However, there is still room for improvement, since less than half of babies currently meet the WHO recommendation[5]. In the state of Santa Catarina, located in the southern region of Brazil, specific studies in different cities showed prevalences of 48.4% and 43.6% of EBF at six months of age, data similar to the national prevalence[6-7].

The literature points out factors that are associated with the maintenance of EBF until the sixth month, and it is possible to highlight major axes that determine it: 1) maternal characteristics (such as age, skin color, marital status and nutritional status); 2) characteristics of the baby (gestational age at birth, for example); 3) characteristics of prenatal and delivery care (number of consultations carried out, receipt of information at consultations); and 4) factors related to the puerperium (such as support network, use of pacifier and bottle by the baby)[8-10]. In Brazil, some of the factors that make up these axes present evidence in the literature in relation to longer duration of EBF, including higher maternal education, residence in a capital

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or metropolitan area, mother with an mean age of 20-35 years, without paid work and baby with less age and who does not use pacifiers[10].

Studies that evaluated factors associated with EBF up to six months were carried out in some maternity hospitals or with populations living in metropolitan areas of specific municipalities or capital[10]. The systematic reviews published on the subject indicate that some variables are more studied and their association with EBF is well established. However, there are still gaps in longitudinal studies for analyses that include variables such as intention to breastfeed during pregnancy, difficulties experienced in breastfeeding, gestational age at birth and family support network[10-11].

In order to guarantee the quality of maternal and child health, the Stork Network in the Unified Health System (SUS) was established in Brazil. Its main pillars include encouraging humanized delivery, expanding access to prenatal consultations, promoting breastfeeding and reducing maternal and infant mortality[12]. Regarding breastfeeding, the Stork Network plays a fundamental role in strengthening care for pregnant and postpartum women, promoting evidence-based practices for the early initiation of breastfeeding and its exclusive maintenance until six months of life. In this context, understanding how factors associated with prenatal, delivery and puerperium influence EBF can contribute to the improvement of the actions developed by this public policy, enhancing its impacts on maternal and child health.[5]

Thus, to the extent that knowledge of the factors that lead to early weaning allows the creation of public policies aimed at education and the encouragement of mothers to practice breastfeeding, the objective of this study was to verify the association of prenatal, delivery and puerperium characteristics with the prevalence of EBF in puerperal women treated at the Unified Health System (SUS) of Santa Catarina. Thus, this study allows us to identify determinants of EBF that can support interventions and policies aimed at promoting and strengthening breastfeeding.

METHOD

Type of study

Observational prospective cohort study, carried out with data from the research entitled "Prenatal and immediate puerperium in primary care: evaluation of the management of the Stork Network in Santa Catarina (SC)"[12]. This umbrella research carried out an epidemiological diagnosis of prenatal and postpartum care in the state of Santa Catarina, through interviews with puerperal women who had their deliveries in public hospitals in the state. This study followed the recommendations of the Statement STROBE (Strengthening the Reporting of Observational studies in Epidemiology).

The state of Santa Catarina had a population of 7,164,788 inhabitants in 2019 and in that same year had a total of 98,032 registered births, with 99.3% of them being in a hospital unit.

The population of this study was composed of puerperal women from public hospitals in Santa Catarina. Hospitals that had records of at least 500 births by SUS in 2016 were selected, and this set of institutions corresponded to 86.2% of all births in the state financed by SUS in that year, resulting in 31 hospitals in 30 municipalities. The number of interviews to be conducted in each hospital was calculated, following the proportional distribution of births observed in 2016. For the sample calculation, the following were considered: confidence level of 95%, population of 50,000, margin of error of 1.6 percentage points, estimated prevalence of 50% and increase of 5% for possible losses, resulting in 3,665 women to be interviewed.

The study included women who underwent delivery at the SUS in Santa Catarina, residing in the state throughout pregnancy, who had all prenatal consultations by the SUS or who did not undergo any prenatal consultation, and who had children born alive or stillborn weighing more than 500 g and at least 22 weeks of gestation in the 48 hours prior to the interview. Further methodological details about the study can be seen in a previously published study[12].

Data collection occurred in two moments. The first was carried out through face-to-face interviews and information of medical records in the hospital environment within 48 hours after delivery, in order to identify the socioeconomic, prenatal, delivery and birth characteristics of the puerperal women. Subsequently, the women who

participated in the first collection were contacted by telephone (own or known/family/work) or by e-mail or social networks at least six months after delivery, and invited to answer the second structured questionnaire with information regarding the puerperium and care of the newborn. Both collections were conducted between January and August 2019, by interviewers who went through a training process[12] and, at least, incomplete university education.

The outcome variable of the present study was EBF up to 6 months, collected in the telephone interview through the question: "until what age did your baby breastfeed exclusively, without receiving water, tea, infant formula or other milks?" The mother's response was provided in months and categorized into a dichotomous variable, namely: <6 months and ≥6 months.

The following independent variables related to the first data collection were analyzed related to the prenatal period: number of consultations during pregnancy (<7 consultations or ≥7 consultations), if the woman participated in educational activities about her and/or the baby's health (e.g., group of pregnant women) during prenatal care (yes/no), if this group was talked about breastfeeding (yes/no), if the woman was instructed during prenatal care about the importance of exclusive breastfeeding until the baby's 6 months of age (yes/no), if she was instructed about breastfeeding management (baby's position to breastfeed, adequate handling, preparation of breasts for breastfeeding) (yes/no), if the mother intended to breastfeed (yes/no). The variables analyzed regarding delivery/birth were: type of delivery (vaginal/cesarean section), gestational age at birth (<37 weeks or ≥37 weeks), whether the baby was born in a child-friendly hospital (yes/no), whether the baby was placed on the mother's breast shortly after delivery (yes/no), whether the baby breastfed in the first hour of life (yes/no) and birth weight (categorized into <2500 g and ≥2500 g).

The following independent variables related to the second collection of data related to the postpartum period were also analyzed: if the baby used a pacifier (yes/no), if the baby used a bottle (yes/no), if the mother had support from other people to take care of the baby (partner, grandparents, friends, neighbors) – a variable analyzed as a support network for baby care (yes/no) –, and if the mother had paid leave at work for at least 4 months to take care of the baby (yes/no).

The sociodemographic variables collected and used in the present study were maternal age, collected in complete years and divided into 3 categories (13-19; 20-35 and 36-45 years); maternal education, collected in complete years of study and divided into 3 categories (<=9; 10-12 and >=13 years); self-reported maternal skin color collected in 5 groups: white; black/black; brown; yellow and indigenous. The skin color variable was analyzed in only 3 categories (white; black/black; brown) because the yellow and indigenous categories had a very low proportion (<1%), being excluded from the analyses. The variable family income was collected in reais and divided into tertiles for the analyses; the variable living with a partner was collected in yes/no and analyzed in the same way and primiparity was analyzed according to the number of children reported by the woman, where those who did not have other children were classified as primiparous (Box 1).

For analysis, we initially compared the baseline sample of the study and the women who participated in the monitoring of the cohort using Pearson's chi-square test, considering the socioeconomic, prenatal and delivery variables through their frequency measures.

Subsequently, the distribution of the sample and the prevalence of the outcome were calculated according to the independent variables analyzed, with 95% confidence intervals (95% CI). Through multivariate logistic regression, the odds ratio (OR) and its 95% CI values were calculated according to three adjustment models: model 1, adjusted for sociodemographic characteristics; model 2, adjusted for sociodemographic ($p < 0.20$) + maternal and prenatal characteristics; and model 3, adjusted for sociodemographic ($p<0.20$) + maternal and prenatal characteristics ($p<0.20$) + delivery/birth characteristics. All adjustment variables were selected according to the literature on the subject. Values of $p < 0.05$ were considered significant. Analyses were performed using the statistical software Stata version 15.1.

The research was approved by the Human Research Ethics Committee (CEPSH) of UFSC

(Opinion 1,599,464 of June 20, 2016). All ethical precepts of the Resolution of the National Health Council number 466/2012 were followed. All interviewers signed an Informed Consent Form and the interviewees signed an Informed Consent Form.

RESULTS

The total number of postpartum women interviewed in the first survey data collection was 3,580 (response rate of 97.7%). Of these, 969 puerperal women who participated in the second collection were analyzed in the present study, which corresponds to 26.0% of the baseline. The age of the babies at monitoring ranged from 6 to 9 months, with a mean of 8.0 months (SD=0.95). Of the total, 298 infants (34.1%) were exclusively breastfed until 6 months of age.

Most of the postpartum women were between 20 and 35 years old (76.0%), declared themselves as white (60.0%), lived with a partner (82.7%), half of them had between 10 and 12 years of education and the majority were not primiparous (67.9%). Significant differences were observed between the participants at baseline and follow-up in relation to family income (p=0.046) and skin color (p=0.027), in which at follow-up there was a greater participation of mothers with lower family income and of black and brown skin color (Table 1).

Table 1. Distribution of the sample of puerperal women from baseline and monitoring of the study according to maternal characteristics. Santa Catarina, 2019

Variable	Baseline sample (birth)		Sample monitoring (6-9 Months))		p-value
	N (%)	95% CI	N (%)	95% CI	
Age group					0,63
13-19 years	479 (13,4)	12,3-14,5	111 (13,5)	11,9-16,1	
20-35 years	2692 (75,2)	73,7-76,6	623 (76,0)	72,9-78,8	
36-46 years	409 (11,4)	10,4-12,5	86 (10,5)	8,6-12,8	
Schooling (years of study)					0,299
<=9	1218 (34,5)	32,0-36,1	295 (36,2)	33,0-39,6	
10 - 12 years	1853 (52,5)	50,8-54,1	408 (50,1)	46,7-53,5	
>=13 years	458 (13,0)	11,9-14,1	111 (13,6)	11,4-16,2	
Household income					0,046
1st tertile	1134 (33,4)	31,8-35,0	292 (37,0)	33,6-40,4	
2nd tertile	1147 (33,8)	32,2-35,4	258 (32,7)	29,5-36,0	
3rd tertile	1114 (32,8)	31,2-34,4	240 (30,4)	27,3-33,7	
Skin color					0,027
White	2205 (63,4)	61,8-65,0	471 (60,0)	56,5-63,3	
Black	330 (9,5)	8,6-10,5	91 (11,6)	9,5-14,0	
Brown	941 (27,1)	25,6-28,6	223 (28,4)	25,3-31,7	
With partner					0,062
No	695 (19,5)	18,2-20,9	141 (17,3)	14,8-20,0	
Yes	2864 (80,5)	79,1-81,7	676 (82,7)	80,0-85,2	
Primiparity					0,667
No.	2453 (68,6)	66,9 – 70,0	557 (67,9)	64,6 – 71,1	
Yes	1126 (31,4)	29,9 – 33,0	263 (32,1)	28,9 – 35,3	

Regarding prenatal care, most women had 7 or more consultations (77.2%), but this percentage decreased when analyzing whether they received information about the importance of EBF (63.2%) and breastfeeding management (43.4%) in these consultations. In addition, less than 1 in 5 women participated in an educational group in the SUS (Table 2).

Table 2. Distribution of the sample of puerperal women who participated in the study monitoring and prevalence of exclusive breastfeeding up to 6 months of age of the baby. Santa Catarina, 2019

Prenatal variables	Total sample of the monitoring		Exclusive breastfeeding until 6 months	
	N (%)	95% CI	N (%)	95% CI
Had ≥7 consultations (versus <7)	618 (77,2)	74,2 – 80,0	203 (36,3)	32,4 – 40,4

Participated in SUS educational group (versus did not participate)	119 (14,7)	12,4-17,3	29 (28,2)	20,2-37,7
Received information about BF in the educational group (versus did not receive)	103 (10,6)	8,8-12,7	26 (29,2)	20,6-39,6
Received information on the importance of EBF in prenatal consultations (versus did not receive)	510 (63,2)	59,8-66,5	147 (31,9)	27,8-36,3
Received information on BF management in prenatal consultations (versus did not receive)	349 (43,4)	40,0-46,9	105 (33,5)	28,5-39,0
Delivery and birth variables				
Delivery in a baby-friendly hospital (vs. other hospitals)	510 (61,8)	58,4-65,1	163 (35,7)	31,5-40,3
Mother intended to breastfeed (vs. did not intend to)	798 (97,8)	96,5-98,6	257 (35,2)	
Baby was placed on mother's breast immediately after birth (vs. was not placed)	776 (94,2)	92,3-95,6	247 (35,1)	31,6-38,7
Baby breastfed within the first hour of life (vs. did not breastfeed)	594 (77,3)	74,2-80,2	196 (36,4)	32,4-40,5
Birth weight ≥2500g	681 (94,1)	92,1-95,6	212 (34,0)	30,3-37,8
Gestational age ≥37 weeks	727 (90,5)	88,3-92,4	235 (35,5)	31,9-39,2
Vaginal delivery (vs. cesarean section)	480 (58,5)	55,1-61,9	166 (37,6)	33,2-42,3
Puerperium variables				
Mother with support network for baby care (versus no support)	733 (76,3)	73,5-78,9	221 (33,2)	29,7-36,9
Mother on paid leave from work (versus no paid leave)	485 (55,1)	51,7-58,3	142 (32,1)	27,9-36,6
Baby used a pacifier (versus did not use one)	538 (56,3)	53,1-59,4	118 (24,3)	20,7-28,3
Baby used a bottle (versus did not use one)	655 (68,4)	65,4-71,3	139 (23,5)	20,3-27,1

The absolute majority of babies (9 out of 10) had a birth weight greater than or equal to 2500 grams, gestational age at birth greater than or equal to 37 weeks, were placed on the mother's breast shortly after delivery and the mother intended to breastfeed. On the other hand, there was a lower proportion of babies who breastfed in the first hour of life (77.3%) and who were born in a child-friendly hospital (61.8%). It is noteworthy that more than half of the babies used pacifiers and bottles during their six months of life. Three out of four women reported having a support network for baby care, while 55% of them had paid leave at work for at least 4 months to take care of the child (Table 2).

Table 3 shows the data on the association between exclusive breastfeeding up to 6 months of age with the analyzed variables. After adjustments, pacifier use decreased by 64% (95% CI 0.24-0.54), bottle use by 75% (95% CI 0.16-0.38) and receiving information on the importance of EBF in consultations by 30% (95% CI 0.50-0.97) the chances of maintaining EBF until 6 months of age. On the other hand, other variables were associated in the adjusted analyses, in which babies who breastfed in the first hour of life had 44% more chances of EBF up to 6 months (95% CI 1.01-2.42), while being born vaginally increased this same chance by 48% (95% CI 1.07-2.14).

Table 3. Logistic regression analysis models between prenatal, delivery/birth and puerperium variables and the prevalence of exclusive breastfeeding in puerperal women assisted by SUS. Santa Catarina, 2019

Prenatal variables	Modelo bruto OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 3 OR (95% CI)
Performed ≥ 7 consultations	1,30 (0,90; 1,88)	1,28 (0,85; 1,91)	-	-
Participated in educational group	0,69 (0,44;1,10)	0,64 (0,39; 1,06)	-	-
Received information about EBF in the educational group	0,78 (0,48;1,26)	0,72 (0,43; 1,21)	-	-
Received important EBF information in prenatal consultations	**0,71 (0,52;0,98)**	**0,70 (0,50; 0,97)**	-	-
Received EBF management information at prenatal visits	0,88 (0,65;1,20)	0,94 (0,68; 1,31)	-	-
Delivery and birth variables				
Delivery in a baby-friendly hospital	1,08 (0,79;1,47)	1,14 (0,82;1,59)	1,17 (0,83; 1,66)	-
Intention to breastfeed	1,50 (0,47; 4,75)	1,14 (0,34, 3,89)	0,96 (0,27; 3,38)	-
Baby was placed on mother's breast immediately after birth	1,01 (0,52;1,92)	0,93 (0,48;1,83)	1,03 (0,51; 2,08)	-

Baby breastfed for the first hour of life	1,34 (0,91;1,96)	1,43 (0,95; 2,16)	**1,56 (1,01; 2,42)**	-
Birth weight <2500g	0,60 (0,28;1,30)	0,67 (0,30;1,49)	0,70 (0,31; 1,61)	-
Gestational age >=37 weeks	1,08 (0,63;1,82)	1,07 (0,60; 1,91)	0,97 (0,53; 1,78)	-
Vaginal delivery	1,32 (0,97;1,80)	**1,42 (1,03;1,99)**	**1,52 (1,07; 2,14)**	-
Postpartum variables				
Mother with support network for baby care	0,85 (0,62;1,19)	0,95 (0,65;1,38)	0,97 (0,66; 1,44)	0,90 (0,58; 1,40)
Mother on paid leave from work	0,85 (0,63;1,14)	0,83 (0,59;1,15)	0,78 (0,55; 1,10)	0,70 (0,47; 1,04)
Baby used a pacifier	**0,37 (0,28;0,49)**	**0,42 (0,31;0,59)**	**0,45 (0,32; 0,64)**	**0,36 (0,24; 0,54)**
Baby used a bottle	**0,23 (0,17;0,31)**	**0,22 (0,16;0,32)**	**0,22 (0,15; 0,32)**	**0,25 (0,16; 0,38)**

Model 1. adjustment sociodemographic variables
Model 2. adjustment sociodemographic variables with p-value > 0.20 + prenatal variables
Model 3. adjustment sociodemographic variables with p-value > 0.20 + prenatal variables with p-value > 0.20 + delivery/birth variables

DISCUSSION

The present study sought to evaluate the association of prenatal and postpartum variables with the percentage of EBF at six months of age of the baby. Receiving information about breastfeeding during the prenatal visit and the baby's pacifier and bottle use decreased the chances of EBF, while vaginal delivery and breastfeeding in the first hour of life increased the chances of EBF. The results of this study highlight the relevance of effective actions during prenatal and postpartum periods, with emphasis on education and support for breastfeeding. The negative impact of the use of pacifiers and baby bottles, for example, reinforces the need for education policies for breastfeeding mothers, which could include campaigns aimed at raising awareness about the risks of these items. In addition, the finding that breastfeeding in the first hour of life increases the chances of EBF up to six months highlights the importance of strengthening institutional policies that promote immediate skin-to-skin contact. Programs such as the Kangaroo Method, already widespread in SUS, could be expanded to include continuous training for hospital teams, ensuring that delivery and postpartum routines are aligned with the best practices recommended by WHO.

The proportion of EBF at six months found in the present study (34.1%) was lower than the worldwide prevalence (40.0%) and lower or similar to that of other studies conducted in different Brazilian cities, including populations served by SUS in São Paulo (39%)[13]. Puerperal women who were treated in the private network had higher chances of early weaning[14] and, in the public network, the prevalence of EBF increased after the implementation of the Brazilian Breastfeeding Network, which instituted breastfeeding support in primary care[5]. Nevertheless, the incidence found in this study, which had as a sample only women treated at the SUS, showed that only one in three children reached the WHO recommendation[1].

Receiving information about the importance of EBF during prenatal visits decreased the chances of breastfeeding exclusively at six months. Educational actions and interventions during prenatal care are successful or not in EBF, depending on their frequency, the health professional involved and how they are performed[15]. A study conducted in Brazil with data from women who breastfed exclusively up to six months indicated that most of them did not receive information about breastfeeding during prenatal care, indicating that other factors are related to the practice[16]. In this sense, it is important to analyze the frequency and way in which information about EBF is being carried out during prenatal care, in order to effectively encourage these activities in the SUS, also given the low percentage of women who participated in educational activities found in this study (only 15%). The negative association between receiving information about breastfeeding during prenatal care and the outcome of EBF requires critical reflections on the quality and frequency of these guidelines. These data suggest the need for evaluation and improvement of educational strategies. Implementing training for primary care professionals, in addition to creating interactive and culturally sensitive educational materials, can increase adherence and the impact of these interventions.

Hobbs et al (2016)[17] point out that, regardless of the mode of delivery, the absolute majority of women planned to breastfeed; however, only those who had vaginal delivery had greater success in this outcome. It was shown that women who underwent cesarean section

reported greater difficulties in breastfeeding, including pain, personal difficulties, difficulty with holding the baby, painful nipples, swollen breasts and low milk production compared to women who had vaginal delivery[17]. This association of breastfeeding with the mode of delivery was also demonstrated in a meta-analysis[18], indicating that vaginal delivery is associated with greater initiation and maintenance of breastfeeding. The positive association between vaginal delivery and EBF maintenance also points to the need to reduce high rates of unnecessary cesarean sections. Humanization strategies for delivery in the SUS, such as the Normal Delivery Centers, are fundamental to encourage the informed choice of delivery route. In addition, public policies should prioritize the availability of doulas and obstetric nurses, who play a crucial role in supporting women during the delivery process and in the first moments of the baby's life.

Breastfeeding in the first hour of life is a variable related to the concept of "golden hour", a term used in neonatology for full-term and preterm babies, which includes evidence-based practices in the first sixty minutes of life, recommending that the stable newborn should be placed in contact with the mother and breastfeeding should be started in the first half hour after birth[19].

The first skin-to-skin contact of the mother and baby and breastfeeding in the first hour after delivery are important for the initiation and subsequent continuation of breastfeeding[9-20]. This relationship between skin-to-skin contact with the mother and success at the beginning of breastfeeding was studied in more detail, showing that babies have lower levels of stress and that this practice maintains an innate behavior of the need for sucking and generates hormonal responses in the mother[21]. Despite this relationship between the two variables (skin-to-skin contact and breastfeeding in the first hour of life), in the present study only breastfeeding in the first hour of life was associated with EBF at six months of life of the baby.

The variables that had higher magnitudes in the associations with EBF in the present study were pacifier and bottle use, in which mothers whose babies used these items were 75% less likely to maintain EBF until six months of age. The use of artificial nipples such as pacifiers and bottles has its practice perpetuated among lactating women, mainly in order to calm the baby and bring more coziness[22]. However, the literature[22-23] points to the association between the use of artificial nipples and reduction in exclusive breastfeeding time, due to the fact that the suction muscles are different between the use of nipples and the breast, generating confusion of nipples and causing the baby to leave the mother's breast, in addition to the fact that the use of these devices decreases the time and frequency of breastfeeding, physiologically reducing milk production and breastfeeding prolongation.

As a limitation of the present study, the possible recall bias stands out, as the questions about prenatal care were asked in the immediate postpartum period, while the women were hospitalized after the birth of the baby. As for EBF, there may have been a social desirability bias, since this variable was self-reported by the mothers. Another limitation can be attributed to the method of questioning the use of pacifiers and bottles, which did not take into account the time of onset of use and its frequency, placing all babies who used them at some point in their first months of life in a single group for analysis. In addition, the inclusion only of hospitals with more than 500 deliveries by SUS may have excluded smaller hospitals and puerperal women attended in rural areas or with less access to health services, limiting the generalization of the results to the entire population of Santa Catarina. However, it is noteworthy that this set of institutions corresponded to 86.2% of all births in the state financed by SUS in 2016. In addition, women lost to monitoring in relation to the baseline have some distinct characteristics (income and skin color) and may be subject to greater socioeconomic vulnerability or less engagement with the health system, for example.

Finally, the results of this study can serve as a basis for the development of integrated actions involving multiple levels of health care. The formulation of public policies should consider the multifactoriality that permeates EBF, prioritizing intersectoral approaches that combine education, support and adequate infrastructure for prenatal and postnatal care. Reinforcing these aspects is essential for Santa Catarina to achieve the global breastfeeding goals, ensuring health and quality

of life for mothers and babies. Finally, it is considered that success in EBF is multifactorial, as it depends on maternal conditions, the baby, guidance and health care[8]. It is believed that the results found in this study can contribute to a reflection on aspects involved in the success of achieving the EBF recommendation, both by the Ministry of Health and by the World Health Organization, which is still below that recommended among pregnant women assisted by SUS in the state of Santa Catarina.

CONCLUSION

Receiving information about breastfeeding during the prenatal visit and the baby's pacifier and bottle use decreased the chances of EBF at six months; while vaginal delivery and breastfeeding in the first hour of life increased the chances. The results of this study corroborate the multifactorial issue involved in EBF, and demonstrate that factors of prenatal, delivery and puerperium can contribute to the greater or lesser occurrence of this outcome.

INFLUÊNCIA DE CARACTERÍSTICAS DO PRÉ-NATAL, PARTO E PUERPÉRIO NO ALEITAMENTO MATERNO EXCLUSIVO AOS SEIS MESES

RESUMO

Objetivo: verificar a associação de características do pré-natal, parto e puerpério com a prevalência de aleitamento materno exclusivo (AME) em puérperas atendidas no Sistema Único de Saúde de Santa Catarina. **Método:** estudo de coorte prospectiva com 969 puérperas do estado de Santa Catarina, Brasil. Foram coletadas informações sociodemográficas e do pré-natal, parto e puerpério em dois momentos: no hospital, imediatamente após o parto, e por telefone, seis meses depois dele. Foram realizadas análises de regressão logística brutas e ajustadas para verificar a associação de variáveis de pré-natal, parto e puerpério ao AME, controladas por características maternas. **Resultados:** foram variáveis que diminuíram a chance de manter o AME até os 6 meses de idade: uso de chupeta (64%), uso de mamadeira (75%) e recebimento de informações sobre a importância do AME nas consultas (30%). Por outro lado, bebês que amamentaram na primeira hora de vida (44%) e que nasceram por parto vaginal (48%) tiveram mais chances de realizar o AME até os 6 meses de vida. **Conclusão:** fatores desde o pré-natal influenciaram o AME, contudo, há uma importante associação de fatores envolvidos no pós-parto.

Palavras-chave: Aleitamento materno. Cuidado pré-natal. Período pós-parto.

INFLUENCIA DE LAS CARACTERÍSTICAS DEL PRENATAL, PARTO Y PUERPERIO EN LA LACTANCIA MATERNA EXCLUSIVA A LOS SEIS MESES

RESUMEN

Objetivo: evidenciar la asociación de características del prenatal, parto y puerperio con la prevalencia de la lactancia materna exclusiva (LME) en puérperas atendidas en el Sistema Único de Salud de Santa Catarina - Brasil. **Método**: estudio de cohorte prospectivo con 969 mujeres en el estado de Santa Catarina, Brasil. Se recogieron informaciones sociodemográficas y de prenatal, parto y puerperio en dos momentos: en el hospital, inmediatamente después del parto, y por teléfono, tras seis meses. Se realizaron análisis de regresión logística para verificar la asociación de variables de prenatal, parto y puerperio a la LME, controlados por características maternas. **Resultados**: fueron variables que disminuyeron la probabilidad de mantener la LME hasta los 6 meses de edad: uso de chupón (64%), uso de biberón (75%) y recepción de información sobre la importancia de la LME en las consultas (30%). Por otro lado, los bebés que amamantaron en la primera hora de vida (44%) y que nacieron por parto vaginal (48%) tuvieron más posibilidades de realizar la LME hasta los 6 meses de vida. **Conclusión**: factores desde el prenatal han influido en la LME, sin embargo, hay una importante asociación de factores involucrados en el postparto.

Palabras clave: Lactancia materna. Cuidado prenatal. Período postparto.

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