

Breastfeeding difficulties and their relationship with eating habits at hospital discharge

Dificuldades com amamentação e sua relação com a prática alimentar na alta hospitalar Dificultades con la lactancia y su relación con la práctica alimentaria en el alta hospitalaria

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ABSTRACT

Objective: to describe the frequencies of breastfeeding difficulties during hospitalization in rooming-in and their relationship with eating habits at hospital discharge. **Method:** cross-sectional study conducted from data from a cohort, carried out between March 2017 and April 2018, through face-to-face interviews and data collection from hospital records of a national reference hospital for high fetal and infant risk. Descriptive statistics were used through absolute and relative frequencies and the chi-square test in all analyses. **Results:** of 686 mothers and their newborns, 50.6% of the women had difficulties with breastfeeding, with emphasis on: attachment, suction, type of nipple, nipple trauma. Among newborns who were exclusively breastfed at hospital discharge, 51.3% had no breastfeeding difficulties during hospitalization. **Conclusion:** despite the difficulty presented by half of the studied sample, the need for early support for exclusive breastfeeding is highlighted, even in the hospital environment.

Descriptors: Rooming-in Care; Breast Feeding; Milk Banks; Health Promotion.

RESUMO

Objetivo: descrever as frequências das dificuldades com aleitamento materno durante a internação em alojamento conjunto e sua relação com a prática alimentar na alta hospitalar. **Método:** estudo transversal conduzido a partir de dados de uma coorte, realizada entre março de 2017 e abril de 2018, mediante entrevistas face a face e coleta de dados de prontuários hospitalares de um hospital de referência nacional para alto risco fetal e infantil. Utilizou-se a estatística descritiva por meio de frequências absolutas, relativas e teste qui-quadrado em todas as análises. **Resultados:** de 686 mães e seus recém-nascidos, 50,6% das mulheres apresentaram dificuldades com aleitamento materno, com destaque para: pega, sucção, tipo de mamilo, trauma mamilar. Dentre os recém-nascidos que receberam aleitamento materno exclusivo na alta hospitalar, 51,3% não apresentaram dificuldades com amamentação durante a internação. **Conclusão:** apesar da dificuldade apresentada em metade da amostra estudada, ressalta-se a necessidade do suporte precoce ao aleitamento materno exclusivo ainda no ambiente hospitalar. **Descritores:** Alojamento Conjunto; Aleitamento Materno; Banco de Leite Humano; Promoção da Saúde.

RESUMEN

Objetivo: describir las frecuencias de dificultades para amamantar durante la hospitalización en alojamiento conjunto y su relación con los hábitos alimentarios al alta hospitalaria. **Método**: estudio transversal realizado a partir de datos de una cohorte, realizada entre marzo de 2017 y abril de 2018, a través de entrevistas cara a cara y recolección de datos de registros hospitalarios de un hospital de referencia nacional de alto riesgo fetal e infantil. Se utilizó estadística descriptiva a través de frecuencias absolutas y relativas y la prueba de chi-cuadrado en todos los análisis. **Resultados**: de 686 madres y sus recién nacidos, el 50,6% de las mujeres presentaron dificultades para amamantar, con énfasis en: agarre, succión, tipo de pezón, traumatismo en el pezón. Entre los recién nacidos que recibieron lactancia materna exclusiva al alta hospitalaria, el 51,3% no tuvo dificultades para amamantar durante la hospitalización. **Conclusión**: a pesar de la dificultad presentada por la mitad de la muestra estudiada, se destaca la necesidad de apoyo temprano para la lactancia materna exclusiva, incluso en el ámbito hospitalario.

Descriptores: Alojamiento Conjunto; Lactancia Materna; Bancos de Leche Humana; Promoción de la Salud.

INTRODUCTION

Considered the gold standard food, breast milk contains nutrients and benefits in its composition that promote child health and reduce neonatal mortality, in addition to extending benefits to the health of breastfeeding women¹. The World Health Organization (WHO) and the Ministry of Health of Brazil recommend offering it exclusively during the first six months of the child's life and in a complementary way up to two years or more^{2,3}.

The dissemination of scientific evidence and the development of actions favorable to breastfeeding (BF) practice directly influenced the increase in breastfeeding prevalence and duration in Brazil. The latest national prevalence study found that 45.7% of children younger than 6 months are exclusively breastfed and 60.9% of children younger than 24

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months are supplementally breastfed, which means a respectively increase of 42.8 and 23.5 percentage points in the BF rate between the years 1986-2020⁴.

Although these rates are similar between different regions of the world and Brazil, it is estimated that the increase in breastfeeding practice can prevent more than 823,000 deaths in children under 5 years of age and 20,000 deaths in women due to breast cancer per year in the world⁵. In this sense, one of the WHO targets for the year 2025 is set to increase the exclusive rate breastfeeding in the first six months of the infant's life to at least 50% worldwide³.

The woman's decision to breastfeed is directly linked to the meaning and perception of breastfeeding and her experience or shared experiences, such as the social and cultural context in which she is inserted⁶. Therefore, the act of breastfeeding requires support, learning and continuous preparation⁷, which must be fundamentally started during prenatal care, an opportune moment to rebuild thoughts, reduce fears and anxieties, clarify doubts and empower women in their capacities as a nursing mother⁸.

However, establishing breastfeeding in many cases can represent a great challenge when facingf difficulties and/or complications in the breasts⁹. Factors such as inadequate positioning, incorrect latch, nipple pain/injury and lack of support are related to early weaning in the first weeks after the baby's birth^{5,10}.

Support and intervention by health professionals during hospitalization are essential ¹¹, as newborns who practice exclusive breastfeeding at hospital discharge are more likely to succeed in the prevalence of exclusive breastfeeding up to six months of life ^{12,13}. In addition, there are many benefits of breast milk for the baby, such as adequate weight gain, reduced risk of developing childhood obesity, high blood pressure, high cholesterol and diabetes in adulthood, as well as protection against allergies and infectious diseases of the gastrointestinal and respiratory tract that are common in early childhood ^{14,15}. Studies further point out that breastfeeding favors the child's facial development ¹⁶, promotes interaction and strengthens the affective bond of the mother-baby binomial ^{5,14,17}.

Considering that the immediate initiation of breastfeeding provides protection to the newborn in the first days of life and necessary adaptation for the mother and baby in breastfeeding practice, the objective of this study was to describe the frequencies of difficulties with BF during rooming-in hospitalization and its relationship with feeding practices at hospital discharge.

METHOD

This is a cross-sectional study based on data from a cohort conducted between March 2017 and April 2018 in a national reference hospital for high-risk fetal and infant care¹⁸. Data were extracted from face-to-face interviews conducted during hospitalization and from hospital records of mothers and newborns at hospital discharge.

Mothers and their newborns who were in rooming-in hospitalization were considered eligible for this study. The following were excluded: (i) mothers with contraindications for breastfeeding due to HIV and HTLV; (ii) newborns with anencephaly; (iii) newborns with congenital pathology incompatible with life, in which the medical team pointed out that it was impossible to provide an oral diet at any stage of life; (iv) indication of gastrostomy in the first week of life; (v) foreign mothers; (vi) participants who did not meet the research assistant; (vii) neonatal death within five days; (viii) mothers who refused to participate in the study¹⁹.

A variable called "difficulty with breastfeeding" was constructed for the exposition. Thus, all mothers and newborns who had at least one of the following difficulties were included: baby does not suck or has difficulty sucking; difficulty with latching; breast engorged or with few drops of milk; difficulty with nipple type; nipple pain or cracks; delay in milk letdown; baby refuses maternal breast; little milk; milk hyperflow; and/or baby crying a lot. However, the difficulties were also analyzed individually.

For maternal and neonatal explanatory covariates, and regarding the health care, we considered: maternal age; maternal education; family income; smoking during pregnancy; smoking after childbirth; parity; number of prenatal consultations; breastfed first child; breastfed in the delivery room; skin-to-skin contact in the delivery room; wanted to breastfeed after the baby was born; support in the first days after childbirth; guidance on breastfeeding during prenatal care; type of delivery; pacifier use during hospitalization; use of formula during hospitalization; perinatal morbidity; twins; birth weight; and gestational age at birth.

The outcome analyzed was "feeding practices at hospital discharge", categorized as: exclusive breastfeeding (EBF), related to breastfeed babies who did not receive any other liquid or solid food; supplemented breastfeeding (SBF), when babies received breast milk supplemented with other types of milk, such as cow's milk or formula, or with solid or semi-solid foods; and not breastfed (NBF)²⁰.





Data analysis was performed in three steps. Differences in maternal and neonatal characteristics were initially analyzed according to "difficulty with breastfeeding" using the chi-squared test. Breastfeeding difficulties were analyzed individually according to "feeding practices at hospital discharge" through descriptive analysis, and the association between exposure and outcome was verified using Pearson's chi-squared test, while Fisher's exact test was applied in the presence of an expected frequency of less than five in the contingency tables. Finally, differences in proportions between the "number of difficulties with breastfeeding during hospitalization" and the type of breastfeeding at hospital discharge were verified using the chi-squared test. Differences in percentage points were presented between groups and significance levels of 5% were adopted in all analyses. The R Foundation for Statistical Computing version 3.5.2 statistical program was used for all analyzes.

The research protocol was assessed and approved by the Ethics and Research with Human Beings Committee of the institution involved, and written consent was obtained from all participants.

RESULTS

A total of 686 mothers and their newborns were included in this study. Table 1 presents the maternal and neonatal characteristics of the service and the frequency of difficulties with breastfeeding in rooming-in.

TABLE 1: Maternal characteristics of study participants stratified by breastfeeding difficulties. Rio de Janeiro, RJ, Brazil, 2018.

		Difficulties with breastfeeding			
		Total	No	Yes	
Characteristics		n (%)	n (%)	n (%)	p-value*
Mother's age	< 20 years	94 (13.8)	49 (14.6)	45 (13.0)	0.534
	20 - 34 years	473 (69.3)	235 (69.9)	238 (68.6)	
	≥ 35 years	116 (17.0)	52 (15.5)	64 (18.4)	
Maternal education	Up to elementary	265 (38.8)	141 (42.0)	124 (35.7)	0.095
	High school or higher	418 (61.2)	195 (58.0)	223 (64.3)	
Family income	2 or more MS	351 (62.2)	163 (60.1)	188 (64.2)	0.326
	Less than 2 MS	213 (37.8)	108 (39.9)	105 (35.8)	
Smoking after childbirth	No	661 (96.9)	319 (95.2)	342 (98.6)	0.012
	Yes	21 (3.1)	16 (4.8)	5 (1.4)	
Smoking during pregnancy	No	624 (91.8)	304 (91.0)	320 (92.5)	0.486
	Yes	56 (8.2)	30 (9.0)	26 (7.5)	
Parity	Multiparous	347 (51.0)	204 (60.9)	143 (41.4)	< 0.001
	Primiparous	333 (49.0)	131 (39.1)	202 (58.6)	
Number of prenatal appointments	0	1 (0.1)	0 (0.0)	1 (0.3)	0.821
	1 to 5	43 (6.3)	20 (6.0)	23 (6.6)	
	<u>></u> 6	639 (93.6)	316 (94.0)	323 (93.1)	
Gestational age	< 37 weeks	71 (10.3)	35 (10.3)	36 (10.4)	0.983
	≥ 37 weeks	615 (89.7)	304 (89.7)	311 (89.6)	
Gestational morbidity	No	378 (55.1)	198 (58.4)	180 (51.9)	0.085
	Yes	308 (44.9)	141 (41.6)	167 (48.1)	
Breastfed first child	No	30 (4.4)	13 (3.8)	17 (5.0)	< 0.001
	Yes	308 (45.2)	189 (55.8)	119 (34.7)	
	Primiparous mothers	344 (50.4)	137 (40.4)	207 (60.3)	
Breastfed in the delivery room	No	466 (68.1)	217 (64.2)	249 (72.0)	0.029
	Yes	218 (31.9)	121 (35.8)	97 (28.0)	
Skin-to-skin contact in the delivery	No	270 (39.6)	135 (40.2)	135 (39.1)	0.780
room	Yes	411 (60.4)	201 (59.8)	210 (60.9)	
Desire to breastfeed	Sometimes the baby preferred				
	a bottle with formula	20 (2.9)	11 (3.2)	9 (2.6)	0.870
	Strong desire	632 (92.3)	312 (92.0)	320 (92.5)	
	Desire fluctuates	25 (3.6)	13 (3.8)	12 (3.5)	
	Always thinks the bottle with				
	formula is better	8 (1.2)	3 (0.9)	5 (1.4)	
Total		686 (100.0)	339 (49.4)	347 (50.6)	

Note: MS = minimum monthly salary (R\$ 937.00) [http://www.planalto.gov.br/ccivil_03/_Ato2015-2018/2016/Decreto/D8948.htm]; [http://receita.economia.gov.br/orientacao/tributaria/declaracoes-e-demonstrativos/ecf-escrituracao-contabil-fiscal/taxas-de-cambio-incluindo-valor-do-dolar-para-fins-fiscais-irpj-AC-anteriores]



^{*}p-value <0.05 based on Pearson's chi-squared test/Fisher's exact test



TABLE 2: Neonatal and care characteristics of study participants stratified by breastfeeding difficulties. Rio de Janeiro, RJ, Brazil, 2018.

		Difficulties with breastfeeding			
		Total	No	Yes	
Characteristics		n (%)	n (%)	n (%)	p-value*
Support in the first days after childbirth	No	16 (4.6)	2 (40.0)	14 (4.0)	0.018
	Yes	335 (95.4)	3 (60.0)	332 (96.0)	
Guidance on BF in prenatal care	No	166 (24.3)	72 (21.3)	94 (27.2)	0.070
	Yes	517 (75.7)	266 (78.7)	251 (72.8)	
Type of delivery	Cesarean	351 (51.2)	170 (50.1)	181 (52.2)	0.598
	Transpelvian (normal)	335 (48.8)	169 (49.9)	166 (47.8)	
Pacifier during hospitalization	No	669 (98.0)	331 (98.2)	338 (97.7)	0.624
	Yes	14 (2.0)	6 (1.8)	8 (2.3)	
Formula during hospitalization	No	502 (73.4)	264 (77.9)	238 (69.0)	0.009
	Yes	182 (26.6)	75 (22.1)	107 (31.0)	
Perinatal morbidity	No	579 (84.4)	285 (84.1)	294 (84.7)	0.813
	Yes	107 (15.6)	54 (15.9)	53 (15.3)	
Twins	No	603 (87.9)	298 (87.9)	305 (87.9)	0.997
	Yes	83 (12.1)	41 (12.1)	42 (12.1)	
Birth weight	< 2500g	65 (9.5)	31 (9.1)	34 (9.8)	0.770
	<u>></u> 2500g	621 (90.5)	308 (90.9)	313 (90.2)	
Total		686 (100.0)	339 (49.4)	347 (50.6)	

^{*}p-value <0.05 based on Pearson's chi-squared test/Fisher's exact test

It was found that 50.6% of women had some difficulty with breastfeeding. Regarding to maternal characteristics, primiparous women had greater difficulty in breastfeeding, as well as multiparous women who did not breastfeed their first child, with 60.3% and 5.0%, respectively. Almost 80.0% of the women who did not have difficulty breastfeeding in the first days after childbirth practiced EBF at hospital discharge.

Around 70.0% of newborns were not breastfed in the delivery room, of which 72.0% had difficulty breastfeeding. In addition, among newborns who received formula during hospitalization, it was found that 31.0% had difficulties with breastfeeding.

Regarding to the health care, a higher proportion of difficulties with breastfeeding was observed in mothers who received prenatal guidance (27.2%). However, approximately 100.0% of those who had some type of difficulty in breastfeeding received support from the health team in the first postpartum days.

Table 3 presents data related to difficulties with breastfeeding presented during rooming-in hospitalization.

TABLE 3: Difficulties with breastfeeding during hospitalization and the type of feeding practice at hospital discharge n=686). Rio de Janeiro, RJ, Brazil, 2018.

	Feeding practice at		
	SBF	EBF	_
Difficulties	N (%)	N (%)	p-value*
Baby does not suck or has difficulty sucking	23 (16.8)	47 (11.7)	0.039
Difficulty with latching	44 (32.1)	139 (34.7)	0.704
Breast engorged or with few drops of milk	0 (0.0)	6 (1.5)	0.345
Difficulty with nipple type	19 (13.9)	85 (21.2)	0.210
Nipple pain or cracks	14 (10.2)	62 (15.5)	0.311
Delay in milk let down	34 (24.8)	45 (11.2)	< 0.001
Baby refuses mother's breast	1 (0.7)	4 (1.0)	-
Little milk	2 (1.5)	11 (2.7)	0.743
Milk hyperflow	0 (0.0)	1 (0.2)	-
Baby cries a lot	0 (0.0)	1 (0.2)	-
Total	137 (100.0)	401 (100.0)	

Note: EBF = exclusive breastfeeding; SBF = supplemented breastfeeding.

The most frequent difficulties among mother-baby binomials in AMC at hospital discharge were with latching on (32.1%), delay in milk let-down (24.8%) and absence or difficulty in sucking (16.8%). Similarly, binomials on EBF at



^{*}p-value <0.05 based on Pearson's chi-squared test/Fisher's exact test.



hospital discharge had higher frequencies of difficulty with latching on (34.7%) and type of nipple (21.2%), followed by pain or nipple fissures (15.5%). It was also noticed that, although half of the study population had difficulty breastfeeding, 77.0% of newborns were on EBF at hospital discharge.

Table 4 presents the analysis related to breastfeeding difficulties and the type of breastfeeding at hospital discharge.

TABLE 4: Quantity of difficulties with breastfeeding during hospitalization and the type of breastfeeding outcome at hospital discharge, Rio de Janeiro, RJ, Brazil, 2018.

	Total	SBF	EBF	
Number of difficulties with breastfeeding	N (%)	N (%)	N (%)	p-value*
No difficulty	339 (49.4)	68 (43.0)	271 (51.3)	0.206
1 Difficulty	188 (27.4)	52 (32.9)	136 (25.8)	
2 Difficulties	120 (17.5)	27 (17.1)	93 (17.6)	
3 or more difficulties	39 (5.7)	11 (7.0)	28 (5.3)	
Total	686 (100.0)	158 (23.0)	528 (77.0)	

Note: EBF = exclusive breastfeeding; SBF = supplemented breastfeeding

It was observed that the amount of difficulties presented during hospitalization and the type of breastfeeding at hospital discharge did not present a significant difference. However, it is possible to verify that there are greater proportions of newborns with SBF when they have one or more difficulties (n = 90), whereas EBF is more frequent among newborns who did not have any difficulties with breastfeeding, with about 51.0%.

DISCUSSION

At least half of the mother-infant binomials had difficulties with breastfeeding during rooming-in hospitalization. The most frequent were: difficulty with latching on, sucking by the NB, type of nipple of the nursing mother, pain or nipple cracks, and delay in the let-down of breast milk. The presence of one or more difficulties in breastfeeding makes the binomial more vulnerable to discontinuing EBF at hospital discharge.

Obstacles to breastfeeding were more commonly observed among primiparous and multiparous women who had not breastfed their previous child, which is a similar result to a cross-sectional study in the south of Brazil which revealed that the smaller the number of children, the greater the demand for care for problems with breastfeeding²¹. Previous breastfeeding experience proved to be a protective factor for adherence to breastfeeding as result of experience acquired in the pregnancy-puerperal cycle²². Despite that, women who did not breastfeed a previous child had a higher frequency of EBF abandonment²³. The fear of reliving such a scenario triggers an uncomfortable and restless environment, inducing the woman to avoid the practice of breastfeeding with her next child²⁴. Thus, special attention should be given to this group in the first days after childbirth so that they receive the necessary support in facing possible difficulties.

It was also possible to observe a significant amount of newborns who did not have skin-to-skin contact, in addition to higher proportions of women who did not breastfeed their babies, although both practices are recommended by WHO and BFHI^{25,26}. It is noteworthy that the institution studied is a national reference center for high fetal, neonatal and infant risk, a profile which can interfere or hinder breastfeeding and skin-to-skin contact in the delivery room in order to meet the health needs of the newborn. However, the scenario of this study was rooming-in, where we found that most participants did not have gestational and perinatal morbidity, which suggests a possible weakness in the care process in the delivery room, and is similar to what occurs in Brazil (34%²⁸) and in the world (1% - 98%²⁷) with prevalence of skin-to-skin contact below the recommended level, as in the present study. In addition, previous studies reveal that skin-to-skin contact soon after birth enables the baby to have a pre-programmed biological behavior of seeking and spontaneously sucking at the mother's breast^{29,30}. This intervention acts as essential care to increase the chance of success in establishing BF in the first hour of life and its continuity in the long term, in addition to extending advantages in the newborn's sucking pattern, immediate adaptation to extrauterine life and establishing the mother-infant bond^{29,30}. Therefore, it is necessary to increase efforts and educational and managerial interventions to improve the practice of skin-to-skin contact even in the delivery room.

Another important factor that can inhibit breastfeeding practice is the use of infant formula during hospitalization. The belief that breastfeeding is unable to supply the child may result in introducing other feeding practices before the appropriate moment³¹. In the absence of a consistent clinical indication, the use of breast milk substitutes even during the hospitalization period may increase the risk of EBF interruption in the first month of life compared to those children who remained on EBF³². In this sense, maternity hospitals that have the "Baby-Friendly" title should not offer human



^{*}p-value < 0.05 based on Pearson's chi-squared test/Fisher's exact test.



milk substitutes unnecessarily³³. In this study, it was observed that despite the low supply of infant formula during hospitalization, its use was directly associated with problems with breastfeeding in most binomials.

On the other hand, the present study did not identify significant differences between the groups that presented difficulties in breastfeeding and maternal age, maternal education, family income, smoking during pregnancy, number of prenatal consultations, type of delivery, use of pacifiers during hospitalization, birth weight and perinatal morbidity, although studies indicate that these factors are directly associated with weaning earlier than recommended ^{22, 32,34,35}.

In addition, the difficulty with latching and sucking showed high frequencies in the studied sample. Initial problems in breastfeeding, such as establishing correct latching and effective sucking by the baby are frequently reported in the literature and are characterized when the baby only sucks the nipple, presenting a closed mouth with an inverted lower lip and rapid sucking patterns, followed by popping noises to movement. Thus, breastfeeding becomes inefficient and painful, increasing the likelihood of complications and breast trauma^{37,38}.

Although the percentage of women with pain or cracked nipples represented the fourth most frequent difficulty among nursing mothers in this study, they are still the most mentioned variables in the literature for interfering with the breastfeeding process. It is estimated that 88% of women on average experience some degree of discomfort in the first week of breastfeeding^{22,37,38}.

Regarding to a delay in milk let-down, it was noticed that most pairs practiced EBF at hospital discharge, although 11.0% of mothers reported it as a difficulty. Few drops of milk are physiologically expected during lactogenesis 2, however many women perceive this moment as delay or little milk. It is important that the team realizes this yearning and insecurity by providing specific guidance on the lactogenesis 2 period, also known as support, so that the woman can feel more confident and understand that the volume up to the first 96 hours is smaller due to gastric capacity of the newborn also being smaller³⁹.

Furthermore, no dose-response effect was observed between the number of difficulties and feeding practices at hospital discharge in this study. However, women and their newborns with one or more difficulties were more vulnerable to early interruption of EBF. Other similar association studies identified a high prevalence of initial difficulties with breastfeeding and non-exclusive BF^{9,40}.

Based on the present findings, the best time to approach and educate health professionals about breastfeeding is during pregnancy, as the decision to breastfeed or not is made by the pregnant woman. Approaching the pregnant woman and her companion enables transmitting the knowledge of beliefs, fears and expectations that involve the family about the pregnancy-puerperal cycle. More than that, it is an opportune period for clarifying doubts, rebuilding knowledge and strengthening the support network in which the future nursing mother is inserted. Furthermore, studies point out that support from the health team in the first postpartum days contributes to overcoming difficulties and provides positive effects for the feeding practice of newborns at hospital discharge, constituting data which corroborate the findings of this investigation 33,39,40.

Study limitations

The description of difficulties with breastfeeding during rooming-in hospitalization was limited to a national reference institution for high fetal and infant risk in the state of Rio de Janeiro and may not correspond to the reality in other Brazilian states; however, the findings may reflect the specificities of breastfeeding practice in reference institutions for high fetal and infant risk.

CONCLUSION

Although half of the mothers had difficulties with breastfeeding, it is noted that the early support of health professionals at the maternity hospital was fundamental for mothers and babies, which contributed to approximately 77.0% of these binomials practicing EBF at hospital discharge.

In this context, the study reinforces the importance of health professionals in guiding and supporting mothers who experience some type of breastfeeding difficulty even during hospitalization, to reduce the rates of early weaning caused by preventable factors. In addition, the findings point to the importance of new discussions and care methodologies directed at mothers and their newborns during hospitalization, in addition to recommending permanent education aimed at strengthening the knowledge of health professionals who act in the decision-making process of encouraging breastfeeding and health promotion.



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REFERENCES

- Pérez-Escamilla R, Tomori C, Hernández-Cordero S, Baker P, Barros AJD, Bégin F, et al. Breastfeeding: crucially important, but increasingly challenged in a market-driven world. Lancet. 2023 [cited 2023 Feb 10]; 401:472-85. DOI: https://doi.org/10.1016/s0140-6736(22)01932-8.
- 2. Ministério da Saúde (Br). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Saúde da criança, aleitamento materno e alimentação complementar. Brasília (DF): Ministério da Saúde; 2015 [cited 2022 Mar 30]. Available from: https://bvsms.saude.gov.br/bvs/publicacoes/saude_crianca_aleitamento_materno_cab23.pdf.
- 3. World Health Organization. Global Targets 2025: To Improve Maternal, Infant, and Young Child Nutrition. Geneva, Switzerland. Geneva: WHO; 2017 [cited 2022 Mar 30]. Available from: https://www.who.int/publications-detail-redirect/WHO-NMH-NHD-14.2.
- 4. Universidade Federal do Rio de Janeiro. Estudo Nacional de Alimentação e Nutrição Infantil ENANI-2019: Resultados preliminares Indicadores de aleitamento materno no Brasil. UFRJ: Rio de Janeiro; 2020 [cited 2022 Mar 30]. Available from: https://enani.nutricao.ufrj.br/wp-content/uploads/2020/08/Relatorio-preliminar-AM-Site.pdf.
- 5. Walters DD, Phan LTH, Mathisen R. The cost of not breastfeeding: global results from a new tool. Health Policy Plan. 2019 [cited 2022 Mar 30]; 34(6):407-17. DOI: https://doi.org/10.1093/heapol/czz050.
- 6. Tomori C, Palmquist AE, Quinn EA. Introduction. In: Tomori C, Palmquist AE, Quinn EA, eds. Breastfeeding: new anthropological approaches. New York: Routledge; 2018. p. 1–28.
- 7. World Health Organization. Guideline: counselling of women to improve breastfeeding practices. Geneva, Switzerland. Geneva: WHO; 2018 [cited 2022 Mar 30]. Available from: https://www.who.int/publications/i/item/9789241550468.
- 8. Buckland C, Hector D, Kolt GS, et al. Interventions to promote exclusive breastfeeding among young mothers: a systematic review and meta-analysis. Int Breastfeed J. 2020 [cited 2022 Mar 30]; 15:102. DOI: https://doi.org/10.1186/s13006-020-00340-6.
- 9. Coca KP, Pinto VL, Westphal F, Mania PNA, Abrão ACFV. Bundle of measures to support intrahospital exclusive breastfeeding: evidence of systematic reviews. Rev Paul Pediatr. 2018 [cited 2022 Mar 22]; 36(2):214-20. DOI: https://doi.org/10.1590/1984-0462/;2018;36;2;00002.
- 10. Freitas DAK, et al. Determinantes para a interrupção do aleitamento materno exclusivo aos 30 dias de vida. Rev Paul Pediatr. 2022 [cited 2022 Mar 30]; 40. DOI: https://doi.org/10.1590/1984-0462/2022/40/2021096.
- 11. Blixt I, Johansson M, Hildingsson I, et al. Women's advice to healthcare professionals regarding breastfeeding: "offer sensitive individualized breastfeeding support"- an interview study. Int Breastfeed J. 2019 [cited 2022 Mar 30]; 14:51. DOI: https://doi.org/10.1186/s13006-019-0247-4.
- 12. Silva MDB, Oliveira RVC, Alves DSB, Melo ECP. Predicting risk of early discontinuation of exclusive breastfeeding at a Brazilian referral hospital for high-risk neonates and infants: a decision-tree analysis. Int Breastfeed J. 2021 [cited 2022 Mar 22]; 16(1):2. DOI: https://doi.org/10.1186/s13006-020-00349-x.
- 13. Cruz NACV, Reducino LM, Probst LF, Guerra LM, Ambrosano GMB, Cortellazzi KL, et al. Associação entre o tipo de aleitamento materno na alta hospitalar do recém-nascido e aos seis meses de vida. Cad Saúde Coletiva. 2018 [cited 2022 Mar 22]; 26(2):117-124. DOI: https://doi.org/10.1590/1414-462X201800020349.
- 14. Carvalho MR, Gomes C.F. Amamentação: Bases Científicas. 4ª Ed. Rio de Janeiro (RJ): Guanabara Koogan; 2016.
- 15. Ministério da Saúde (Br). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Saúde da criança: nutrição infantil: aleitamento materno e alimentação complementar. Brasília (DF): Ministério da Saúde, 2009.
- Boronat-Catalá M, Bellot-Arcís C, Montiel-Company JM, Almerich-Silla JM, Catalá-Pizarro M. Does breastfeeding have a long-term positive effect on dental occlusion? J Clin Exp Dent. 2019 [cited 2022 Mar 30]; 11(10):e947-e951. DOI: https://doi.org/10.4317/jced.56312.
- 17. Rosario SE, Pitombo LB, Nogueira JGP. Amamentação: primeira experiência de comunicação. Divulg Saúde Debate. 2016 [cited 2022 Mar 27]; 54:26-34. Available from: http://cebes.org.br/site/wp-content/uploads/2016/04/DIVULGACAO_54-WEB-FINAL.pdf.
- 18. Silva MDB. Aleitamento materno na atenção neonatal e infantil de alta complexidade: estudo de coorte [tese de doutorado]. Rio de Janeiro: Escola Nacional de Saúde Pública Sergio Arouca; 2020.
- 19. Silva MDB, de Almeida JA, Melo ECP, Leite VR. Developing a cohort web application: real-time monitoring of breastfeeding indicators. Telemed E-health. 2020 [cited 2022 Mar 27]; 8(20):1-6. DOI: https://doi.org/10.29086/JISfTeH.8.e20.
- 20. World Health Organization. Indicators for assessing infant and young child feeding practices. Part 1 Definitions. Geneva, Switzerland. Geneva: WHO; 2008 [cited 2022 Mar 30]. Available from: https://www.who.int/publications/i/item/9789241596664.
- 21. Passos LS, Kroll C, Borges L, Rocha EDM, Schultz LF. Follow-up of the care of postpartum women and newborns in a Human Milk Bank. Esc. Anna Nery [Internet]. 2020 [cited 2022 Mar 29]; 24(2): e20190086. DOI: https://doi.org/10.1590/2177-9465-EAN-2019-0086.
- 22. Ferreira HLOC, Oliveira MF, Bernardo EBR, Almeida PC, Aquino OS, Pinheiro AKB. Factors associated with adherence to the exclusive breastfeeding. Ciênc Saúde Coletiva. 2018 [cited 2022 Mar 29]; 23(3):683-90. DOI: https://doi.org/10.1590/1413-81232018233.06262016.
- 23. Mohamed MJ, Ochola S, Owino VO. Comparison of knowledge, attitudes and practices on exclusive breastfeeding between primiparous and multiparous mothers attending Wajir District hospital, Wajir County, Kenya: A cross-sectional analytical study. Int Breastfeed J. 2018 [cited 2022 Mar 29]; 13:11. DOI: https://doi.org/10.1186/s13006-018-0151-3.
- 24. Palmér L. Previous breastfeeding difficulties: an existential breastfeeding trauma with two intertwined pathways for future breastfeeding-fear and longing. Int J Qual Stud Health Well-being. 2019 [cited 2022 Mar 29]; 14(1):1588034. DOI: https://doi.org/10.1080/17482631.2019.1588034.



DOI: http://dx.doi.org/10.12957/reuerj.2023.73485



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- 25. Li Z, Mannava P, Murray JCS, Western Pacific Region Early Essential Newborn Care Working Group, et al. Association between early essential newborn care and breastfeeding outcomes in eight countries in Asia and the Pacific: a cross-sectional observational-study. BMJ Global Health. 2020 [cited 2022 Mar 29]; 5:e002581. DOI: http://dx.doi.org/10.1136/bmjgh-2020-002581.
- 26. Silva CM, Pellegrinelli ALR, Pereira SCL, Passos IR, Santos LC. Educational practices in accordance with the "Ten steps to successful breastfeeding" in a Human Milk Bank. Ciênc Saúde Colet. 2017 [cited 2022 Mar 29]; 22(5):1661-71. DOI: https://doi.org/10.1590/1413-81232017225.14442015.
- 27. Abdulghani N, Edvardsson K, Amir LH. Worldwide prevalence of mother-infant skin-to-skin contact after vaginal birth: A systematic review. PLoS ONE. 2018 [cited 2022 Mar 30];13(10):e0205696. DOI: https://doi.org/10.1371/journal.pone.0205696.
- 28. Baldisserotto ML, Theme Filha MM, da Gama SGN. Good practices according to WHO's recommendation for normal labor and birth and women's assessment of the care received: the "birth in Brazil" national research study, 2011/2012. Reprod Health. 2016 [cited 2022 Mar 30]; 13(Suppl 3):124. DOI: https://doi.org/10.1186/s12978-016-0233-x.
- 29. Sharma A. Efficacy of early skin-to-skin contact on the rate of exclusive breastfeeding in term neonates: a randomized controlled trial. Afr Health Sci. 2016 [cited 2022 Mar 29]; 16(3):790–7. DOI: https://doi.org/10.4314/ahs.v16i3.20.
- 30. Agudelo S, Díaz D, Maldonado MJ, Acuña E, Mainero D, Pérez O, et al. Effect of skin-to-skin contact at birthonearly neonatal hospitalization. Early Hum Dev. 2020 [cited 2022 Mar 29]; 144:105020. DOI: https://doi.org/10.1016/j.earlhumdev.2020.105020.
- 31. Sousa ELO, Melo LGNS, Medeiros DMF. Práticas de complementação ao leite materno: concepções de puérperas sobre aleitamento materno e uso de fórmula infantil. Rev Bra Edu Saúde. 2019 [cited 2022 Mar 29]; 9(2):76-84. DOI: https://doi.org/10.18378/rebes.v9i2.6149.
- 32. Silva OLO, Rea MF, Sarti FM, Silva MO. Association between infant formula and pacifier supply in maternity and breastfeeding in the first six months of life. Demetra. 2019 [cited 2022 Mar 29]; 1:e43555. DOI: https://doi.org/10.12957/DEMETRA.2019.43555.
- 33. World Health Organization. United Nations Children's Fund. Implementation guidance: Protecting, promoting, and supporting breastfeeding in facilities providing maternity and newborn services: the revised Baby-friendly Hospital Initiative 2018. Geneva, Switzerland. Geneva: WHO and UNICEF; 2018 [cited 2022 Mar 30]. Available from: https://www.who.int/publications/i/item/9789241513807.
- 34. Victora CG, Bahl R, Barros AJ, França GV, Horton S, Krasevec J, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. Lancet. 2016 [cited 2022 Mar 30]; 387:475-90. DOI: https://doi.org/10.1016/S0140-6736(15)01024-7.
- 35. Pinheiro JMF, Flor TBM, Araújo MGG, Xavier AMSF, Mata AMBD, Pires VCDC, et al. Feeding practices and early weaning in the neonatal period: a cohort study. Rev Saúde Pública. 2021 [cited 2022 Mar 30]; 25:55-63. DOI: https://doi.org/10.11606/s1518-8787.2021055003248.
- 36. Barbosa GEF, Pereira JM, Soares MS, Pereira LB, Pinho L, Caldeira AP. Initial difficulties with breastfeeding technique and the impact on duration of exclusive breastfeeding. Rev Bras Saúde Mater Infant. 2018 [cited 2022 Mar 30]; 18(3):517-26. DOI: https://doi.org/10.1590/1806-93042018000300005.
- 37. Ministério da Saúde (Br). Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Bases para discussão da Política Nacional de Promoção, Proteção e Apoio ao Aleitamento Materno. Brasília (DF): Ministério da Saúde; 2017.
- 38. Carreiro JA, Francisco AA, Abrão ACFV, Marcacine KO, Abuchaim ESV, Coca KP. Breastfeeding difficulties: analysis of a service specialized in breastfeeding. Acta Paul Enferm. 2018 [cited 2022 Mar 30]; 31(4):430-8. DOI: https://doi.org/10.1590/1982-0194201800060.
- 39. Aleixo TCSE, Carleto EC, Pires FC, Nascimento J da SG. Knowledge and analysis of the process of guidance on breastfeeding for mothers. Rev Enferm UFSM. 2019 [cited 2022 Mar 30]; 9(59):1-18. DOI: https://doi.org/10.5902/2179769236423.
- 40. Rocha ALA, Góes FGB, Pereira FMV, Moraes JRMM, Barcia LLC, Silva LF. O processo de ensino-aprendizagem de puérperas nutrizes sobre aleitamento materno. Rev Cuid. 2018 [cited 2022 Mar 30]; 9(2):2165-2176. DOI: https://doi.org/10.15649/cuidarte.v9i2.510.

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