







Perspectives of health professionals on factors that facilitate and hinder breastfeeding in premature infants in a neonatal unit

Perspectivas dos profissionais de saúde sobre fatores que facilitam e dificultam o aleitamento materno de prematuros em unidade neonatal

Perspectivas de profesionales de salud sobre factores que facilitan y dificultan la lactancia materna de recién nacidos prematuros en una unidad neonatal

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ABSTRACT

Objective: to analyze the main factors that hinder and facilitate breastfeeding of preterm infants in the neonatal unit from the perspective of health professionals. **Methods:** cross-sectional study conducted with 148 professionals in two neonatal units. Data were analyzed using descriptive statistics, Pearson's χ^2 test, and Fisher's Exact or Mann-Whitney's test, with a significance level of 5%. **Results:** the clinical condition of the preterm infant (29.0%) and the mother's emotional condition (27.0%) stood out among the main factors hindering breastfeeding preterm infants in neonatal units. The main facilitators were the mother's willingness/desire to breastfeed (24.3%) and the health professionals' support (23.0%); these factors were similarly distributed in the studied institutions, except for the neonatal unit's infrastructure, which was indicated as a more predominant breastfeeding hindering factor in one of the institutions ($p = 0.002$). **Conclusion:** healthcare professionals considered breastfeeding in premature newborns to depend mainly on mother-baby conditions. The promotion and support of breastfeeding in neonatal units are still a challenge for professional practice. Improving the infrastructure of neonatal units and strengthening the conditions that favor mothers' willingness/desire to breastfeed are important perspectives.

Descriptors: Breast Feeding; Neonatal Nursing; Health Personnel; Infant, Premature; Intensive Care Units, Neonatal.

RESUMO

Objetivo: analisar os principais fatores que dificultam e facilitam o aleitamento materno de recém-nascidos prematuros na unidade neonatal, na perspectiva dos profissionais de saúde.

Métodos: estudo transversal realizado com 148 profissionais de duas unidades neonatais. Os dados foram analisados por meio de estatística descritiva, teste de χ^2 de Pearson, Exato de Fisher ou Mann-Whitney, com nível de significância de 5%. **Resultados:** destacaram-se entre os dificultadores de aleitamento materno de prematuros em unidades neonatais a condição clínica do prematuro (29,0%) e a condição emocional materna (27,0%). Como principal facilitador a vontade/desejo da mãe de amamentar (24,3%) e o apoio dos profissionais de saúde (23,0%); estes fatores foram distribuídos de modo semelhante nas instituições estudadas, exceto infraestrutura da unidade neonatal, apontada como dificultador de aleitamento materno mais preponderante em uma das instituições ($p = 0,002$). **Conclusão:** profissionais de saúde consideraram o aleitamento materno do recém-nascido prematuro dependente, principalmente, das condições mãe-bebê. A promoção e o apoio ao aleitamento materno nas unidades neonatais ainda são um desafio para a prática profissional. Melhorar as condições de infraestrutura das unidades neonatais e reforçar as condições que favorecem a vontade/desejo da mãe de amamentar apresentam-se como perspectivas importantes.

Descritores: Aleitamento Materno; Enfermagem Neonatal; Pessoal de Saúde; Recém-Nascido Prematuro; Unidades de Terapia Intensiva Neonatal.

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RESUMEN

Objetivo: analizar los principales factores que dificultan y facilitan la lactancia materna de recién nacidos prematuros en unidad neonatal, desde la perspectiva de profesionales de salud. **Métodos:** estudio transversal realizado con 148 profesionales de dos unidades neonatales. Los datos se analizaron mediante estadística descriptiva, (prueba χ^2 de Pearson, prueba exacta de Fisher o prueba exacta de Mann-Whitney), con un nivel de significación del 5%. **Resultados:** estado clínico del niño prematuro (29,0%) y estado emocional materno (27,0%) se destacaron entre los impedimentos para la lactancia materna de los niños prematuros. Principales facilitadores: voluntad/deseo de la madre de amamantar (24,3%) y apoyo de profesionales de salud (23,0%) los cuales se distribuyeron similarmente en las instituciones estudiadas, excepto la infraestructura de la unidad neonatal de una de las instituciones ($p = 0,002$). **Conclusión:** profesionales de salud consideraron que la lactancia materna del recién nacido prematuro dependía, principalmente, de condiciones materno-infantiles. La promoción y el apoyo a la lactancia materna en unidades neonatales es un reto para la práctica profesional. La mejora de condiciones de infraestructura de unidades neonatales y el refuerzo de condiciones que favorecen la voluntad/deseo de la madre de amamantar son perspectivas importantes.

Descriptor: Lactancia Materna; Enfermería Neonatal; Personal de Salud; Recien Nacido Prematuro; Unidades de Cuidado Intensivo Neonatal.

INTRODUCTION

Prematurity (birth of a child at less than 37 weeks of pregnancy) is a condition of vulnerability through organic immaturity, and represents the first cause of death in children under five years of age in the world⁽¹⁾. The World Health Organization classify the premature infants by gestational age into moderate to late (born between 32 and less than 37 weeks of gestation), very premature (born between 28 weeks and less than 32 weeks), and extreme (born at less than 28 weeks of gestation). Mortality varies according to the socioeconomic development of the region of birth and access to quality health services⁽²⁾.

In the world ranking of premature births, Brazil is in tenth place, which highlights a public health issue and points to the need for greater engagement directed at this population group⁽¹⁾. Besides the mortality being important, the premature survivors may present different degrees of dysfunctionality, and hearing and sight impairments, requiring special care⁽²⁾.

Among the measures that can contribute to the reduction of mortality of premature infants are adequate heat supply, support to breastfeeding and basic care to treat infections and respiratory difficulties⁽²⁾.

The beginning of breastfeeding in preterm newborns is complex and challenging for the newborns, their families and healthcare professionals⁽³⁾. An prospective observational study showed that late preterm newborns (born at 34 weeks and 0/7 days to 36 weeks and 0/7 days) have a low rate of breastfeeding initiation and early cessation of breastfeeding at 15, 40 and 90 days of life⁽⁴⁾. A national cohort study pointed out the difficulty in establishing exclusive breastfeeding for preterm newborns until hospital discharge and a 15% decrease in its occurrence in the second week after discharge⁽⁵⁾.

It is known that the coordination of sucking, swallowing and breathing is one of the necessary aspects for a safe and successful oral feeding for preterm newborns, which are gradually developed as they make the transition from tube feeding to feeding by suction⁽⁶⁾.

Thus, healthcare professionals must perform individualized systematized interventions directed to the development of skills and competences of preterm newborn in order to support the practice of breastfeeding, such as promoting and encouraging skin-to-skin contact immediately in the delivery room and/or early (in the first 24 hours of life)⁽⁷⁾ and the kangaroo position in a prolonged and continuous manner⁽⁸⁾.

Nacional⁽⁹⁾ and international⁽¹⁰⁾ studies indicate the Baby Friendly Hospital Initiative (BFHI) as a global public health strategy to improve care and reverse the low prevalence of breastfeeding. In 2009, the BFHI was expanded by Nordic and Quebec (Canada) researchers⁽¹¹⁾ with the creation of the BFHI-Neonatal, a strategy to promote and support breastfeeding, aimed at the population of newborns assisted at neonatal units. This initiative is based on three guiding principles to support actions within neonatal units:

1. Focus and response to the individual needs of each family;
2. Actions based on family-centered care; and
3. Continuity of care between the pre-, peri-, and post-natal periods, as well as after hospital discharge, and the ten steps that have been advocated as an evidence-based practice^(10,11).

The development of care actions requires knowing the hindering and facilitating factors for the process of breastfeeding preterm newborn in neonatal unit. For this, it is important to consider the perspectives of

healthcare professionals from institutions with different conditions of human resources, materials, and physical structure, because, based on this singular view, professionals may or may not engage in behaviors to provide higher quality care.

Thus, the objective of this study was to analyze the main factors that hinder and facilitate breastfeeding of preterm newborns in the neonatal unit from the perspective of health professionals.

METHODS

This is a cross-sectional study carried out in the neonatal unit of two university hospitals in the city of Rio de Janeiro. The checklist Strengthening the Reporting of Observational Studies in Epidemiology (STROBE: <https://www.strobe-statement.org/>) was used.

Although the study sites were university institutions, they have different physical structures, human resources, and materials.

Institution 1 holds the title of Baby-Friendly Hospital (in Portuguese: *Hospital Amigo da Criança*), has 15 neonatal intensive care beds, eight intermediate care beds, six beds for mothers with newborns admitted to the Neonatal Intensive Care Unit (NICU) who are in the process of being discharged; a human milk bank (HMB) that provides services to mothers and hospitalized preterm newborns, a padded chair without armrests next to each bed for parents to stay temporarily with their children in the NICU, and three padded armchairs, which are usually used by mothers during breastfeeding.

Institution 2 does not have the title of Baby-Friendly Hospital. It has six neonatal intensive care beds and one intermediate care bed, padded chairs without armrests for each NICU bed, and improvised bed to mother (preferably breastfeeding) next to the baby's crib during the hospitalization of the newborn in the intermediate unit.

The study population was healthcare professionals (physicians, nurses, nursing technicians, nutritionists, physical therapists, social workers, speech therapists, and psychologists) working with preterm newborns and their mothers in both institutions. All eligible health professionals were invited to participate in the study.

The inclusion criterion was being a health professional who provided direct care to preterm newborns and their mothers during the data collection period and to agree to participate signed Informed Consent. The exclusion criteria were the health professional on vacation, sick leave, premium leave or leave without pay at the time of data collection; a multidisciplinary resident

or teacher who accompanied undergraduate students in field. For professionals who worked in both institutions, it was requested that, if they accepted to participate, they should do so taking only one of the institutions as reference. The recruitment of the participants took place before or after their shifts, according to their availability, and in a private room.

In the institution 1, there were 130 health professionals, 28 of whom were not eligible for the following reasons: seven participated in the pilot test, five were working in activities that did not involve direct care, fourteen were on leave, one also worked as a teacher in the institution, and one was on vacation. Of the 102 eligible professionals, four refused to participate.

In institution 2, there were 55 health professionals, five of whom were ineligible for the following reasons: three were on vacation, one was on leave, and one had already been interviewed in institution 1.

Data were collected from August 2017 to August 2018 by a data collection instrument developed by the research team based on the principles of the manual "Humanized care for low birthweight newborns: Kangaroo Method" (In Portuguese "*Atenção humanizada ao recém-nascido de baixo peso: Método Canguru*")⁽¹²⁾, on the Baby-Friendly Hospital Initiative for Neonatal Units (BFHI-Neo)⁽¹¹⁾ and on scientific evidence of systematic reviews⁽¹³⁻¹⁵⁾.

The form was divided into two parts, the first with five closed questions about the characterization of the participants, with the variables of professional category, education, age, time since graduation, and length of professional experience. The second part contained two questions to identify the main barrier and the main facilitator for breastfeeding preterm newborns.

A pilot test was conducted with seven healthcare professionals, namely two nurses, three nursing technicians, one physical therapist, and one speech therapist from one of the participating institutions, randomly selected for this purpose. The health professionals who participated in the pilot were also randomly selected and were not part of the final sample of the study. The test allowed adjustments to be made to the instrument to improve its clarity.

Data were entered into spreadsheets in Microsoft Excel®, version 2301 (Microsoft Home and Student 2016, Washington, United States of America) and analyzed in The R® Statistical Program, version 3.4.1 (R Core Team, Vienna, Austria). Categorical variables were presented by means of absolute and relative frequencies. The Shapiro-Wilk normality test, and central tendency and dispersion measurement were applied for numerical variables. In the evaluation of statistical differences be-

tween the two institutions, a significance level less than or equal to 5% ($p \leq 0.05$) was considered, using Pearson's χ^2 , Fisher's Exact, or Mann-Whitney's test. For interpretation of the results, the variables were grouped into four blocks:

1. Structure;
2. Process;
3. Maternal conditions;
4. Preterm newborn conditions.

The study was approved by the Research Ethics Committee of the proposing institution, as per CAAE (In Portuguese: *Certificado de Apresentação de Apreciação Ética*) number: 63230216.4.0000.5238 and Opinion number 1.957.814/2017.

RESULTS

A total of 148 health professionals participated in the study. In the institution 1, 98 professionals were interviewed, being 31 (31.6%) nursing technicians, 29 (29.6%) nurses, 23 (23.5%) physicians, five (5.1%) physical therapists, three (3.1%) social workers, three (3.1%) psychologists, two (2.0%) nutritionists, and two (2.0%) speech therapists. In the institution 2, 50 professionals were interviewed, being 24 (48.0%) nursing technicians, seven (14.0%) nurses, seven (14.0%) physicians, four (8.0%) speech therapists, three (6.0%) physical therapists, two (4.0%) social workers, two (4.0%) psychologists, and one (2.0%) nutritionist.

The professionals in institutions 1 and 2 have different characteristics in relation to age, higher and post-graduate level of education, time since graduation, length of professional experience, and length of experience in the neonatal field (Table 1).

The hindering and facilitating factors that influence breastfeeding from the perspective of healthcare professionals are described in Tables 2 and 3, and are grouped

into the following blocks: structure, process, maternal conditions, and preterm newborn conditions.

Among the hindering factors, those related to preterm newborns and mothers predominated, and those related to structure and process were mentioned less frequently (Table 2). There was no difference between the hindering factors mentioned when comparing the two institutions, except for the category structure, which was more mentioned by the professionals working in institution 2.

Among the hindering factors reported by the professionals, clinical conditions of the preterm newborns (instability, immaturity, comorbidity, weight) and emotional circumstances of the mother (fear, stress, lack of desire, impatience, lack of bonding with the preterm newborn predominated). At institution 2, the infrastructure of the neonatal unit was pointed out as a hindering factor for breastfeeding preterm newborn.

Among the facilitating factors for the breastfeeding of preterm newborns (Table 3) indicated by the professionals in institutions 1 and 2, those related to maternal conditions and the health care process in neonatal units predominated, followed by those related to the structure, with no differences when comparing the institutions. Among the facilitating factors, the willingness/desire of the mother to breastfeed and the support of the team stood out.

DISCUSSION

The results of this study show that, for healthcare professionals, the main factors that hinder the process of breastfeeding a premature infant in the NICU are related to the clinical conditions of preterm newborns (instability, immaturity, comorbidity, weight) and the mother's emotional circumstances (fear, stress, lack of desire, impatience, lack of bonding with the preterm newborns. For the professionals of institution 2, the in-

Table 1. Characteristics of the health professionals working in the neonatal unit of institution 1 (n1 = 98) and institution 2 (n2 = 50), according to median age, qualification, and professional experience, Rio de Janeiro, Rio de Janeiro, Brazil, 2018

Variables	Institution 1 f (%)	Institution 2 f (%)	p-value
Median age (IQR*)	45 (13.0)	37 (12.75)	8.59e-05*
Complete higher education	90 (91.8)	29 (58.0)	2.784e-06†
Post-graduate degree (<i>lato sensu and/or stricto sensu</i>)	79 (80.6)	22 (44.0)	1.434e-05†
Time since graduation – median in months (IQR)	22 (11.25)	13.50 (14.5)	0.0001389*
Length of professional experience – median in months (IQR)	22 (11.0)	13 (14.0)	1.781e-05*
Length of experience in the neonatal field (months)	15.50 (14.0)	9.50 (11.0)	0.000656*

Note: IQR: Interquartile range; *Mann-Whitney; †Pearson's chi-squared test.

frastructure of the NICU was also a factor that hindered breastfeeding of preterm newborns, more intensely than in the perspective of the professionals of institution 1.

Regarding the facilitating factors, the professionals in both institutions pointed out as preponderant the maternal willingness/desire to breastfeed and the support of the multidisciplinary team.

The results of the present study corroborate the studies already published on barriers and facilitators of breastfeeding and may constitute subsidies for the reflection and practice of healthcare professionals regarding the difficulties and facilitators of breastfeeding preterm newborns, for the development of intervention actions, mainly related to modifiable aspects, as well as for the creation of protocols based on quality care, respecting the particularities of the context of neonatal hospitalization.

The breastfeeding process begins before the preterm newborn is able to directly suck the breast and includes the high-risk prenatal period, which is when this family should already receive guidance on the management of lactation and breastfeeding, and the benefits of breastfeeding. After birth, factors such as NICU admission and the newborn's clinical conditions have been described as important barriers, leading to lower rates of initiation and duration of breastfeeding^(10,16).

The clinical conditions of preterm newborn, such as anatomical and physiological immaturity of the oral sensory-motor system, respiratory difficulties, and other problems related to conditions associated with preterm birth may hinder the process of breastfeeding. In addition, unpleasant procedures, such as ventilation or frequent sucking of secretions from the mouth or nose, can negatively affect feeding abilities⁽¹⁷⁾.

Table 2. Factors that hinder breastfeeding of preterm newborns from the perspective of health professionals from institution 1 (n1 = 98) and institution 2 (n2 = 50), according to structure, process, maternal conditions and preterm newborn's conditions, Rio de Janeiro, Rio de Janeiro, Brazil, 2018

Variables	Institution 1 f (%)	Institution 2 f (%)	Total n (%)	p-value
Structure				
Infrastructure of the neonatal unit	1 (1.0)	7 (14.0)	8 (5.4)	0.002*
Lack of rooming-in at the NICU	1 (1.0)	1 (2.0)	2 (1.4)	1.0*
Distance between NICU and maternal accommodation	-	2 (4.0)	2 (1.4)	--
Lack of routine among health professionals	1 (1.0)	-	1 (0.7)	--
Lack of a human milk bank	-	1 (2.0)	1 (0.7)	--
Process				
Lack of guidance, encouragement, and stimulus to the mother	8 (8.2)	5 (10.0)	13 (8.8)	0.762*
Difficulty of communication between mothers and healthcare professionals	3 (3.1)	-	3 (2.0)	---
Maternal social issues	2 (2.0)	-	2 (1.4)	---
Lack of preparation in prenatal care	-	2 (4.0)	2 (1.4)	---
Lack of care humanization	-	1 (2.0)	1 (0.7)	---
Paradigm shift	-	1 (2.0)	1 (0.7)	---
Maternal conditions				
Emotional circumstances (fear, stress, lack of desire, impatience, lack of bonding with the PN)	27 (27.6)	13 (26.0)	40 (27.0)	0.996†
Unavailability of the mother in person	3 (3.1)	4 (8.0)	7 (4.7)	0.227*
Low milk production of the mother	3 (3.1)	-	3 (2.0)	---
Mother-infant separation	2 (2.0)	-	2 (1.4)	---
Maternal clinical conditions	3 (3.1)	-	3 (2.0)	---
PN conditions				
PN clinical conditions (instability, immaturity, comorbidity, weight)	31 (31.6)	12 (24.0)	43 (29.1)	0.438†
Prolonged length of hospital stays of PNs	8 (8.2)	1 (2.0)	9 (6.1)	0.274*
Delayed breastfeeding (due to clinical condition or use of a tube)	5 (5.1)	-	5 (3.4)	---

Note: NICU: Neonatal Intensive Care Unit; PN: premature newborn; *Fisher's Exact Test; †Pearson's χ^2 Test; level of significance at 5% ($p \leq 0.05$).

A study conducted with 64 mothers of 81 preterm newborns, with the objective of investigating the facilitators and barriers to breastfeeding during hospitalization in NICUs from the perception of mothers, showed similar data to those found in this study: 39% of the mothers interviewed reported that prematurity and/or low birthweight and/or the presence of comorbidities are factors that hinder breastfeeding in NICUs, and 18% reported that maternal stress and anxiety due to the baby's clinical conditions also hinder the practice of breastfeeding⁽¹⁸⁾.

Given this scenario, health care institutions and healthcare professionals should promote the use of the kangaroo method, which ensures the promotion of early, continuous and prolonged skin-to-skin contact of preterm newborn with their mothers. Such care has been proven to promote breastfeeding and improve the clinical conditions of preterm newborns, reducing

morbidity and mortality in this population⁽⁹⁾. The skin-to-skin contact should be initiated as soon as possible after birth, wherever the preterm newborns are, and that it should be maintained for as many hours as possible (from 8 to 24 hours a day)⁽⁹⁾.

Other important recommendations for the early initiation of breastfeeding are the stimulation of lactation in the first 6 hours after birth, through the removal of milk by breast milking technique, and maintaining clinical stability as the only criterion to start stimulating breast sucking⁽¹⁰⁾.

Although the recommendations are well disseminated worldwide, a descriptive study carried out in Colombia showed, based on direct observations, medical records evaluation and interviews with professionals, that the mother-baby separation, the beliefs of healthcare professionals and some care routines limited important actions to support breastfeeding, hindering practices

Table 3. Factors that facilitate breastfeeding of premature newborns from the perspective of healthcare professionals in institution 1 (n1 = 98) and institution 2 (n2 = 50), according to the structure, process, and maternal and preterm newborn conditions, Rio de Janeiro, Rio de Janeiro, Brazil, 2018

Variables	Institution 1 f (%)	Institution 2 f (%)	Total f (%)	p-value
Structure				
Education and training of healthcare professionals	4 (4.1)	1 (2.0)	5 (34)	0.663*
NICU infrastructure	2 (2.0)	3 (6.0)	5 (34)	0.336*
Rooming-in	-	3 (6.0)	3 (2.0)	
Human Milk Bank	2 (2.0)	-	2 (14)	
Technology	1 (1.0)	-	1 (0.7)	
Calm environment	1 (1.0)	-	1 (0.7)	
Breastfeeding campaigns	-	1 (2.0)	1 (0.7)	
Humanized care practices	-	1 (2.0)	1 (0.7)	
Process				
Multidisciplinary team support	24 (24.5)	10 (20.0)	34 (23.0)	0.684†
Guidance since the prenatal period	1 (1.0)	-	1 (0.7)	
Breastfeeding performance in the hospital	1 (1.0)	-	1 (0.7)	
Maternal conditions				
Maternal willingness, desire to breastfeed	24 (24.5)	12 (24.0)	36 (24.3)	1.0†
Maternal availability	16 (16.3)	5 (10.0)	21 (14.2)	0.427†
Mother-baby bond/Kangaroo position	13 (13.3)	6 (12.0)	19 (12.8)	1.0†
Mother's knowledge	1 (1.0)	4 (8.0)	5 (34)	0.447*
Production of breast milk	2 (2.0)	-	2 (14)	
Mother's confidence	2 (2.0)	-	2 (14)	
PN conditions				
PN clinical conditions (stability and weight gain)	3 (3.1)	4 (8.0)	7 (4.7)	0.227*
PN latching	1 (1.0)	-	1 (0.7)	

Note: NICU: Neonatal Intensive Care Unit; PN: premature newborn; *Fisher's Exact Test; †Pearson's χ^2 test.

such as skin-to-skin contact and early removal of breast milk⁽¹⁹⁾. Such results show the importance of managers and healthcare professionals of neonatal units identifying, in their local reality, the factors that hinder breastfeeding in preterm newborns, so that together they can develop intervention actions to modify or minimize these barriers.

Another barrier pointed out by healthcare professionals in this study is related to the infrastructure of the NICU, which should provide facilitating conditions for the mother and family to stay with the newborn, so that they are involved in the baby's routine care. For this to happen, health care institutions must offer an infrastructure of human, material and physical resources that favor the practice of breastfeeding.

A qualitative study conducted in Londrina, Brazil, whose objective was to unveil the experiences of healthcare professionals at an NICU when facing situations of failure in breastfeeding preterm newborn⁽²⁰⁾, also showed that the infrastructure of neonatal units represents one of the factors that can hinder breastfeeding of preterm newborns, highlighting the lack of accommodation, difficulty of access and permanence of the mother in the maternity unit or NICU⁽²⁰⁾.

In the present study, the greater reference to this factor by the professionals of institution 2 may be related to the insufficiency of some resources (human, physical or material) that promote breastfeeding. This factor should be better investigated since neonatal units all over the world present different conditions, and it is necessary to define a minimally adequate structure. Considering that maternal accommodation and human milk banks are infrastructures that can collaborate in increasing breastfeeding rates^(21,22) it is recommended that they be available in all neonatal units.

Another fundamental condition, to be guaranteed, involves the conditions for the permanence of the mother for breastfeeding.

A prospective, population-based study conducted in 66 neonatal units in France showed that the policy of open access for fathers in neonatal intensive care units was almost universal (89.0%), however, facilities for fathers to stay in the units were lacking⁽²³⁾. Only 39.0% of NICUs offered beds for parents inside the neonatal units; 48.0% offered beds outside the units; 45.0% offered food with drink; and 39.0%, bathrooms with a shower.

The conditions regarding the physical structure to promote breastfeeding do not involve the simple permanence of the fathers, but dignified conditions of feeding and comfort for this permanence. Although institution 1 offered a six-bed room for mothers, with the right to three main meals daily, the father was not allowed

to stay inside this room. By the rule of the institution, the father was allowed to stay next to the incubator in the neonatal unit, in a padded chair without armrests. Regarding the furniture for the practice of breastfeeding, institution 1 offered three armchairs, which can be considered insufficient in relation to the number of 15 vacancies offered for newborns in the NICU at the time of data collection for this study.

The maternal willingness/desire to breastfeed, pointed out here by healthcare professionals as one of the main factors that facilitate breastfeeding in preterm newborns, is a component that, according to research in this field, may suffer external influences, impacting on the practice of breastfeeding both positively and negatively⁽²⁴⁾.

Factors such as family experience can either strengthen the practice of breastfeeding, when family members believe that it is necessary for the child, or weaken the practice when they reinforce myths and beliefs related to the perception of the milk being poor⁽²⁵⁾. In this sense, health professionals can reinforce the recommendations of the benefits of breastfeeding and discuss these myths and beliefs to lead to reflection.

In this study, the multidisciplinary team's support was mentioned by healthcare professionals as a factor that facilitates breastfeeding in preterm newborns. This perception is also corroborated from the mothers' perspective, since a study with 92 mothers of 121 late preterm newborns, with the objective of identifying the factors and barriers to breastfeeding during hospitalization according to the mothers' experience, showed that the healthcare professional's support teaching how to position the baby in the breast (32,0%), the availability to perform milking (31,0%) and support with specialized lactation support (30,0%) were factors mentioned by the mothers that facilitated breastfeeding⁽²⁶⁾. Practical, emotional and informational support favors the increase of self-confidence by women during the breastfeeding process⁽²⁷⁾.

The existence of a positive and cooperative relationship between the health team and mothers tends to facilitate maternal competence and, therefore, contributes to the creation of a bond between women and their babies, consequently promoting the early initiation of breastfeeding. For this purpose, it is essential to continuously develop and strengthen the relationships that involve maternal care, and also to provide permanent training for professionals to improve practices related to communication, which is essential for maintaining and increasing confidence⁽²⁸⁾. In this context, the NICU staff should be trained in breastfeeding counseling, which consists of a human interaction process, based on qual-

ified listening, empathy, acceptance, non-judgmental and practical help, which promotes a closer bond between professionals and family, and increases self-confidence and support in the breastfeeding process^(29,30).

An ethnographic study with nurses and physicians at an NICU in Jordan, aimed to understand attitudes and behaviors of healthcare professionals regarding breastfeeding practices and support provided to mothers of preterm newborns, showed the professionals' difficulty in offering greater support to mothers due to disagreements among team members and lack of institutional support⁽²⁸⁾. It is important to emphasize that unify approaches and qualify the care with view to facility the breastfeeding may be achieved by breastfeeding training, and adopting institutional policies and protocols, in written or computerized form, accessible to the entire team⁽³¹⁾.

As limitations of this study refer to the fact that the research was conducted with a convenience sample and the results cannot be generalized; however, the information produced reinforces the available knowledge.

CONCLUSION

Premature newborns' clinical conditions and maternal emotional factors are pointed out as the main aspects hindering breastfeeding in preterm newborn. The infrastructure of the NICUs was predominantly mentioned by professionals of one of the institutions, indicating that some conditions may have a spatially limited distribution, while others are universal.

The willingness/desire of the mother to breastfeed and the staff support are mentioned by healthcare professionals as factors that facilitate the breastfeeding of preterm newborns.

Therefore, professionals are mainly focused on the mother-baby conditions and recognize only one perspective of their role in this process, that is, as facilitators.

The results point to the need to improve the infrastructure conditions of the neonatal units researched and for healthcare professionals to reinforce the conditions that favor mothers' willingness/desire to breastfeed.

It is recommended that intervention actions be carried out, with periodic assessments of this practice, with these professionals and managers of the institutions studied, to qualify the professional practice regarding breastfeeding of preterm newborns in the NICU.

In order to change the current scenario of breastfeeding in NICUs, a joint effort of continuing education is needed to improve the care for preterm newborns and their families, as well as improve the infrastructure of the institutions to increase the prevalence of exclusive breastfeeding for the preterm newborn population.

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CONFLICT OF INTEREST

None.

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AUTHORS' CONTRIBUTIONS - CRediT

JEPL: investigation; visualization; writing - original draft and writing - review and editing.

ALMG: conceptualization; investigation; project administration; visualization; writing - original draft and writing - review and editing.

MEDM: formal analysis; visualization; writing - original draft and writing - review and editing.

LMS: formal analysis; visualization; writing - original draft and writing - review and editing.

ECR: formal analysis; visualization; writing - original draft and writing - review and editing.

MMC: conceptualization; formal analysis; visualization; writing - original draft and writing - review and editing.

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