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Social support and breast intercurrences in nursing mothers who breastfeed exclusively

Apoio social e intercorrências mamárias de
nutrizes que amamentam exclusivamente

Abstract

Objective: To evaluate the association between spouse and family support to nursing mothers assisted in a Puericulture Program in a Human Milk Bank and breast intercurrences during the period of exclusive breastfeeding (EBF). *Methods:* Cross-sectional study with 169 nursing mothers assisted by the Puericulture Program of a Human Bank Milk in São Luís-MA. A semi-structured questionnaire was administered to collect socioeconomic and demographic data, information on prenatal conditions, social support, and breast intercurrences. Chi-Squared Test and Fischer's Exact Test were employed to verify the associations between the covariables and the pertinent outcome ($p < 0.05$). *Results:* All of the nursing mothers received prenatal care (100%), from which 81.3% had six or more visits, mostly in the public health system (94.7%). More than half of the nursing mothers did not receive orientation on breastfeeding (55.4%), infant's position to breastfeed (63.7%), and breast care during prenatal care (59.2%). Approximately 82% received partner support. However, when suffering from nipple pain (41.1%) and in case of absent, flat or inverted nipples (13.2%), most mothers (86.8%) did not receive such support during EBF ($p = 0.021$). *Conclusion:* There was considerable social support towards

the nursing mothers, but most of those that presented breast intercurrents did not receive any support. It is important to emphasize the need for greater participation of the actors that constitute the social network of pregnant women during prenatal care and child health care.

Keywords: Social support. Prenatal care. Exclusive breastfeeding. Breast Intercurrents..

Resumo

Objetivo: Avaliar a associação entre o apoio do cônjuge e de familiares a nutrizes assistidas em um Programa de Puericultura de um Banco de Leite Humano e as intercorrências mamárias durante o período de aleitamento materno exclusivo (AME). *Métodos:* Estudo transversal com 169 nutrizes assistidas pelo Programa de Puericultura de um Banco de Leite Humano em São Luís-MA. Aplicou-se um questionário semiestruturado para a coleta de dados socioeconômicos e demográficos, condições do pré-natal, apoio social e intercorrências mamárias. O Teste Qui-quadrado e o Teste Exato de Fischer foram empregados para verificar as associações entre as covariáveis e o desfecho de interesse ($p < 0.05$). *Resultados:* Todas as nutrizes se submeteram ao pré-natal (100%), das quais 81,3% realizaram seis ou mais consultas, em sua maioria na rede pública de saúde (94,7%). Mais da metade das nutrizes não recebeu orientações a respeito do aleitamento materno (55,4%), de posições do bebê para amamentar (63,7%) e dos cuidados com as mamas durante o pré-natal (59,2%). Aproximadamente 82% receberam apoio do companheiro, no entanto, na presença de dores nos mamilos (41,1%) e mamilos ausentes, planos ou invertidos (13,2%), a maioria (86,8%) não recebeu tal suporte durante o AME ($p = 0,021$). *Conclusão:* Houve considerável apoio social dirigido às nutrizes, mas dentre as que apresentaram intercorrências mamárias, a maior parte não recebeu esse apoio. Reforça-se a necessidade de maior participação dos atores que compõem a rede social da gestante no pré-natal e nos cuidados com a saúde da criança.

Palavras-chave: Apoio social. Cuidado pré-natal. Aleitamento materno exclusivo. Intercorrências mamárias

INTRODUCTION

Breastfeeding (BF) prevents infant death, respiratory and gastrointestinal infections; reduces the risk for allergies, diabetes, and obesity; has a positive effect on intelligence;^{1,2} and improves the development of children's oral cavity.² Considering this evidence, human milk is the ideal food for children's development, growth, and immune protection due to its nutritional composition and the presence of immune factors. Thus, the World Health Organization (WHO) and the Brazilian Ministry of Health recommend exclusive breastfeeding (EBF) until the sixth month of life and the maintenance of the breastfeeding along with complementary food until the child is two years old or more.³

In addition to providing several advantages for children, EBF also benefits the nursing mother, as it reduces the chances of developing breast and ovary cancer, besides protecting against type 2 diabetes mellitus,^{2,4} arterial hypertension and obesity,⁴ and promoting affective connection between mother and child.¹

Globally, 41.0% of children are exclusively breastfed until six months of age.⁵ In Brazil, the prevalence of EBF has increased from 2.9% in 1986⁶ to 41% in 2008.⁷ Such survey, performed in 2008 in order to evaluate the BF situation in Brazil, verified that the prevalence of EBF in the northeastern region is 37% and, in São Luís-MA, 46.7%.

Although these numbers fall short of the minimum value recommended by WHO (50.0%),⁵ Brazil is internationally recognized for having one of the highest prevalences of BF and EBF. This is due to the public policies and actions implemented in the country in order to protect, promote, and support BF, most specifically the regulation of the International Code of Marketing of Breastmilk Substitutes, the regulation of maternity leave, the creation of Baby-Friendly Hospitals, among others.⁸

Among the main factors that foster the interruption of EBF, the following stand out: return of the nursing mother to work due to absent or insufficient maternity leave time⁹ and lack of support to breastfeed in this environment, breast intercurrents (mastitis, fissures, breast engorgement, etc.)¹⁰ which cause pain during breastfeeding, nursing mother's inexperience due to the lack of knowledge of the benefits of BF and lactation practices, and lack of partner and family support.¹¹ It is known that the inclusion of social networks during pre- and post-natal care increases the chances of success of EBF,¹² as well as the father's support influences the woman's decision to breastfeed.¹³

Considering that EBF prevalence is lower than the expected level, that early weaning is very frequent, being related to breast intercurrents, and that EBF success is associated with the

nursing mother's sociocultural context and social network,¹⁴ the objective of the present study was to estimate the prevalence of spouse and family support during the breastfeeding period and its association with breast interurrences reported by nursing mothers assisted by the Puericulture Service in a University Hospital from São Luís-MA during exclusive breastfeeding.

METHODS

The cross-sectional study was performed in connection with a prospective cohort entitled *"Monitoring of the nutritional status of nursing mothers and infants assisted in a Human Milk Bank (HMB) of a University Hospital in Maranhão"*, developed by Universidade Federal do Maranhão (Federal University of Maranhão – UFMA), from November/2017 to November/2018. The study was performed in the HMB of a Baby-Friendly Hospital, which has the objective of promoting, protecting, and supporting EBF.¹⁵

The population of the study was nursing mothers who, along with their children, were monthly assisted by the Puericulture Program (PP) of the HMB, whose objective is to promote EBF, assist nursing mothers with breastfeeding difficulties, and monitor the growth and development of infants in their first six month of life while they're being exclusively breastfed. Thus, the sample of the study was composed of 169 nursing mothers who requested the HMB services in their infant's first month and were monthly assisted until the child turned six months according to the calendar of appointments of multidisciplinary assistance from the HMB.

In the study, the included nursing mothers were those whose children were having their first appointment in the HMB, in their first month of life, and being exclusively breastfed. The nursing mothers who had contraindications for EBF, had twin pregnancy, and were not breastfeeding were excluded.

Before data collection, a pilot study was performed with 21 mother-infant pairs in order to verify the questionnaire adequacy and the logistics of the study (interviewers sizing, establishment of a schedule for check-in and check-out of the HMB, and time to conduct the interviews).

Previously trained interviewers performed data collection, and a semi-structured questionnaire was administered to collect information about the nursing mothers (name, address, telephone number) and their socioeconomic characteristics (age, in years ≤ 19 , 20-34, 35-46; self-reported skin color: white, non-white; marital status: with partner, without partner; education, in years: <9 , 9-11, 12-16; work outside the home: yes, no; beneficiary of social programs: yes, no; head of the family: partner, nursing mother, father/mother, others;

employment condition: employed/retired, unemployed; family monthly income in minimum wage: <1, 1-2, 3-4, ≥4; demographic data (number of children: up to 2, 3-6; number of residents in the household: up to 4, 5-13); prenatal conditions (received prenatal care: yes, no; number of prenatal visits: <6, ≥6; place of outpatient care: public network, private network; participated in prenatal groups and/or courses: yes, no; received orientation on breastfeeding: yes, no; received orientation on how to position the infant to be breastfed: yes, no; received orientation on breast care: yes, no); type of delivery (cesarean section, natural birth); parity (primiparous, multipara); social support received by nursing mother during EBF (monitoring by the lactation team of the hospital: yes, no; received partner support: yes, no; other family members' support: mother, mother-in-law, sister, grandparents, no, others; received someone's help to do domestic chores: yes, no; received someone's help to take care of the child: yes, no; received someone's help to take care of the child while absent: yes, no; received someone's help to position the infant on the breast: yes, no); and breast interurrences while EBF (had engorgement: yes, no; had fissures and cracks: yes, no; had mastitis: yes, no; had breast abscess: yes, no; had candidiasis: yes, no; had absent, flat or inverted nipples: yes, no; had nipple pain: yes, no).

The database was elaborated in Microsoft Excel®, version 2016, and the statistical analyses were conducted in Stata® software, version 14.0. The normal distribution of the quantitative variables was evaluated through descriptive analysis and Shapiro-Wilk test, representing only their mean and standard deviation. The median and the respective interquartile range were presented for the quantitative variables that did not have normal distribution. The qualitative variables were analyzed by the Chi-Squared Test or Fischer's Exact Test with their absolute and relative frequencies. The adopted level of significance was 5%.

The research that generated this study was approved by the Ethics Committee of the University Hospital from Universidade Federal do Maranhão (Federal University of Maranhão – UFMA) under resolutions 2,341,252, from October 20th, 2017, and 2,673,595 from May 24th, 2018. All participants signed the Informed Consent Term.

RESULTS

Regarding socioeconomic characteristics, 67.5% of the nursing mothers were between 20 and 34 years old, with an average age of 28 years old ($SD \pm 7$); 85.2% self-reported not having white skin color; 74.5% had a partner and reported the partner as the head of the family (55.6%) who worked or was retired (92.8%). Among the interviewees, 75.6% had education equal or superior to 12 years; 68.3% did not work; 59.2% were not beneficiaries of social programs, and 71.6% made less than two minimum wages monthly, with an average wage of R\$ 1,200.00 (DP:

$\pm 1,152.00$), which was R\$ 954.00 in 2018. In terms of demographic characteristics, 84.2% of the nursing mothers reported having up to two children, and 58.6% lived with up to four residents in the same household. All of the mothers received prenatal care, 81.3% had six or more visits, and 94.7% received outpatient care in the public health system. Among the interviewees, 88.7% did not participated in prenatal courses, and many of them did not received prenatal orientation on BF (55.7%), infant's position to breastfeed (63.9%), and breast care (59.8%). 63.9% of the nursing mothers were monitored by the lactation team of the hospital after delivery. There was a predominance of primiparous mothers (50.3%) and cesarean section (45.8%), data which are not displayed in tables.

Table 1 shows the description of variables regarding social support and breast intercurrents. It is worth mentioning that, during EBF, 81.5% of the nursing mothers received their partner's support, and 85.6% received support from other family members; 94% received help with domestic chores; 86.3% received help taking care of the infant; 59.2% were helped to position the infant on their breast; and 56.4% had someone to take care of the child while they were absent. The most frequent breast intercurrents in the nursing mothers were: nipple pain (41.1%), fissures or cracks (39.8%), breast engorgement (23.2%), absent, flat or inverted nipples (13.2%), candidiasis (8.3%), mastitis (5.4%), and breast abscess (2.4%).

Table 1. Apoio social e intercorrências mamárias durante o aleitamento materno exclusivo em nutrízes assistidas no Banco de Leite Humano de um Hospital Universitário. São Luís-MA, 2018-2019.

Variables	n	%
<i>Partner support*</i>		
Yes	137	81.5
No	31	18.5
<i>Other family members' support*</i>		
Yes	143	85.6
No	24	14.4
<i>Someone helped with domestic chores*</i>		
Yes	157	94.0
No	10	6.0
<i>Someone helped with childcare*</i>		
Yes	145	86.3
No	23	13.7

Table 1. Apoio social e intercorrências mamárias durante o aleitamento materno exclusivo em nutrízes assistidas no Banco de Leite Humano de um Hospital Universitário. São Luís-MA, 2018-2019.(Continues)

Variables	n	%
<i>Someone stayed with the child in the mother's absence*</i>		
Yes	93	56.4
No	72	43.6
<i>Someone helped position the child on the breast</i>		
Yes	100	59.2
No	69	40.8
<i>Had breast engorgement</i>		
Yes	39	23.1
No	130	76.9
<i>Had fissures or cracks*</i>		
Yes	67	40.1
No	100	59.9
<i>Had mastitis</i>		
Yes	9	5.3
No	160	94.7
<i>Had breast abscess</i>		
Yes	4	2.4
No	165	97.6
<i>Had candidiasis</i>		
Yes	14	8.3
No	155	91.7
<i>Had absent, flat or inverted nipples*</i>		
Yes	22	13.1
No	146	86.9
<i>Had nipple pain</i>		
Yes	70	41.4
No	99	58.6

* Variation of the sample due to eventual loss of information.

In table 2, it is observed that only the relationship between mother's marital status and partner support during the EBF period was statistically significant. A greater portion of the nursing mothers who reported having partners counted on their support during this period (83.2%) ($p=0.000$). The relation between the head of the family and partner support presented marginal statistical significance. Among the nursing mothers who reported that the head of the family was their partner, there was greater partner support during EBF (60.6%) ($p=0.051$).

Table 2. Relationship between partner support and socioeconomic and demographic variables of nursing mothers assisted in the Human Milk Bank of a University Hospital. São Luís-MA, 2018-2019.

Variables	Total		Received partner support		p-value
	n	%	n	%	
<i>Mother's age* (years)</i>					0.900**
< 19	23	13.6	18	13.1	
20 to 34	113	67.4	93	67.9	
35 to 46	32	19.0	26	19.0	
<i>Skin color*</i>					0.438**
White	25	14.8	19	13.9	
Non-white	143	85.2	118	86.1	
<i>Education (years)*</i>					0.610***
< 9	16	9.6	13	9.5	
9 to 11	24	14.4	18	13.1	
12 to 16	127	76.0	106	77.4	
<i>Number of children*</i>					0.924**
Up to 2	141	84.4	115	84.6	
3 to 6	26	15.6	21	15.4	
<i>Total of residents in the household*</i>					0.084**
Up to 4	99	58.9	85	62.0	
5 to 13	69	41.1	52	38.0	
<i>Marital status*</i>					0.000***
With partner	126	75.0	114	83.2	
Without partner	42	25.0	23	16.8	
<i>Head of the family*</i>					0.051***
Partner	94	55.9	83	60.6	
Nursing mother	22	13.1	15	10.9	
Grandparents	38	22.6	29	21.2	
Others	14	8.4	10	7.3	
<i>Work outside of the home*</i>					0.432**
Yes	53	31.7	45	33.1	
No	114	68.3	91	74.9	
<i>Beneficiary of social programs*</i>					0.084**
Yes	69	41.1	52	38.0	
No	99	58.9	85	62.0	
<i>Family income in minimum wages*</i>					0.854**
< 1	49	36.8	38	35.2	
1 to < 2	46	34.6	38	35.2	
2 to < 4	33	24.8	28	25.9	
≥ 4	5	3.8	4	3.7	

* Variation of the sample due to eventual loss of information

** Chi-squared test

*** Fischer's Exact Test

Table 3 shows that there was no statistically significant difference between partner support and conditions of prenatal care, type of delivery, and child's birth

Table 3 Relationship between partner support and conditions of prenatal and type of delivery of nursing mothers assisted in the Human Milk Bank of a University Hospital. São Luís-MA, 2018-2019.

Variables	Total		Received partner support		p-value
	n	%	n	%	
<i>Number of prenatal visits*</i>					0.267**
< 6	31	18.8	23	17.2	
≥ 6	134	81.2	111	82.8	
<i>Place of prenatal care*</i>					0.480***
Public network	159	94.6	129	94.2	
Private network	9	5.4	8	5.8	
<i>Did prenatal courses*</i>					0.271***
Yes	19	11.4	17	12.5	
No	148	88.6	119	87.5	
<i>Received orientation about breastfeeding during prenatal visits*</i>					0.466**
Yes	74	44.6	62	45.9	
No	92	55.4	73	54.1	
<i>Received orientation about the infant's position to breastfeed during prenatal visits*</i>					0.916**
Yes	61	36.3	50	36.5	
No	107	63.7	87	63.5	
<i>Orientation about breast care during prenatal visits*</i>					0.151**
Yes	68	40.8	59	43.1	
No	100	59.2	78	56.9	
<i>Was monitored by lactation team in the hospital*</i>					0.432**
Yes	107	63.7	86	62.8	0.603**
No	61	36.3	51	37.2	
<i>Type of delivery *</i>					0.496**
Natural birth	90	53.9	75	55.1	
Cesarean section	77	46.1	61	44.9	

* Variation of the sample due to eventual loss of information.

**Chi-squared test

*** Fischer's Exact Test

The relationship between partner support and cases of absent, flat or inverted nipples was statistically significant, as shown in table 4. The highest frequency of nursing mothers that presented such interurrences did not count on their partner's support during EBF (25.8%) (p=0.021). Likewise, 58.1% of the interviewees that had nipple pain reported not having their partner's support (p=0.033).

Table 4. Relationship between partner support and breast interurrences in nursing mothers assisted in the Human Milk Bank in a University Hospital. São Luís-MA, 2018-2019.

Variables	Total		Received partner support		p-value
	n	%	n	%	
<i>Had breast engorgement*</i>					0.573**
Yes	39	23.2	33	24.1	
No	129	76.8	104	75.9	
<i>Had fissures or cracks*</i>					0.976**
Yes	66	39.8	54	39.7	
No	100	60.4	82	60.3	
<i>Had mastitis*</i>					0.480***
Yes	9	5.4	8	5.8	
No	159	94.6	129	94.2	
<i>Had breast abscess*</i>					0.084***
Yes	4	2.4	4	2.9	
No	164	97.6	133	97.1	
<i>Had candidiasis*</i>					0.243***
Yes	14	8.3	10	7.3	
No	154	91.7	127	92.7	
<i>Had absent, flat or inverted nipples*</i>					0.021**
Yes	22	13.2	14	10.3	
No	145	86.8	122	89.7	
<i>Had nipple pain*</i>					0.033**
Yes	69	41.1	51	37.3	
No	99	58.9	86	62.7	

* Variation of the sample due to eventual loss of information.

** Chi-squared test

*** Fischer's Exact Test

No statistically significant association was observed between other family members' support and conditions of prenatal care and type of delivery, as well as between other family members' support and breast interurrences. These data are also not shown in tables.

DISCUSSION

This is one of the few analytical studies that evaluate nursing mothers' social support in breastfeeding, especially in cases of interurrences. We highlight positive results, such as high frequency of mothers who received prenatal care in the public health system, an important network of incentive and protection of breastfeeding practices. Furthermore, most of them reported having a partner and receiving partner support when EBF. However, among the mothers that presented breast interurrences, such as absent, flat or inverted nipples during EBF, most did not have their partner's support. These findings suggest the importance of actions

that strengthen social and health support network, so that women do not interrupt EBF early, which could harm their children's growth.

Prenatal care is extremely important for maternal and infant health, since its objective is prevention, identification, and early correction of health interurrences, and orientation regarding pregnancy, delivery, lactation, and childcare.¹⁰

Although all of the nursing mothers of this study had at least six prenatal visits, in accordance with the recommendation of the Ministry of Health (MH),¹⁶ there was a high frequency of mothers who did not receive orientation on breastfeeding, positioning of the infant to be breastfed, and breast care. Such findings indicate that the quality of prenatal assistance with disseminating important information for the promotion of breastfeeding practices is still low. Confirming our hypotheses, a study with data from a birth cohort in São Luís, in 2010, revealed inadequacy in the content of prenatal assistance in 60.0%. It also evidenced that the pregnant women with worse socioeconomic conditions received assistance with inferior quality.¹⁷

A research developed in Vitória-ES with 692 pregnant women verified that, although all of them received prenatal care, only 63% had five or more visits.¹⁸ Carvalho et al.¹⁹ found similar results when performing a cohort study with 408 women in Curitiba-PR: 85.5% received prenatal care, 58.4% had more than six visits, and only 38.2% received orientations about delivery, breastfeeding, and childcare. Likewise, an investigation conducted in Feira de Santana-BA with 100 nursing mothers revealed that, despite high occurrence of prenatal care (85.0%), 35.3% of the women did not receive orientation about breastfeeding, 55.4% reported pain while breastfeeding, and 41.3% reported breast engorgement.²⁰

The results of the present study agree with a longitudinal research performed in Piracicaba-SP, which involved 111 mother-child binomials and whose authors showed high adherence to prenatal care. Among the mothers who practiced EBF, 91.2% received prenatal care and had more than six visits. However, despite high adherence, there were breast interurrences (46.4%) in almost half of the mothers, with nipple fissures being the most frequently reported (34.2%).²¹

These findings show that there is a great adherence to prenatal care and to the minimum number of visits recommended by the MH. However, health professionals must invest continuously in counseling pregnant women and nursing mothers about breastfeeding practices and lactation, since it was observed in the present study that many of the mothers did not receive such orientation. This, associated with other factors, such as the adaptation period of

the mother-child binomial in the first days after birth, and the lack of family support, could trigger the manifestation of breast intercurrents.²² Moreover, the involvement of the social support network of pregnant women (spouse, family members, friends, neighbors, health professionals, organizations) is crucial during prenatal, being supportive, promoting, and protective of breastfeeding practices,²³ since their sociocultural environment is also linked to breastfeeding.²⁴

On its face, family support during BF is essential, as partner support can encourage the nursing mother to continue to breastfeed or not.²⁵ In the present study, a higher proportion of mothers reported having partner and family support during EBF, besides receiving help in domestic chores and childcare. This social support may have contributed to their spending a longer period breastfeeding exclusively, despite breast intercurrents. Agreeing with the results of this study, Diniz et al.,²⁶ in a research conducted in Salvador-BA, revealed that 88.4% of the women received their partner's support to breastfeed. Another study performed in the northwestern region of Paraná showed that 90% of the nursing mothers reported having family support, with the partner being the most frequently reported (64.5%), followed by the grandmother (35.5%).²⁷

Although the nursing mothers of the present study mentioned their spouse as the greatest source of support, when breast intercurrents happened (especially nipple pain and absent, flat or inverted nipples), most of them did not receive partner support. This could be due to the fact that the partner is usually not involved in the pregnancy and breastfeeding process, since he does not participate in prenatal visits and is not educated about the importance of EBF, the intercurrents that could arise during the breastfeeding process, and the care that must be provided.^{28,29}

Furthermore, it is important to consider that the involvement of the spouse is also minimized, since he is not considered the caregiver and, likely, is not encouraged to participate in the breastfeeding process. Due to the lack of this involvement, Pinto et al.³⁰ conducted a research in a teaching hospital in the north of Paraná and evaluated the perception of fathers regarding intercurrents during the breastfeeding period, verifying sadness, apprehension, and frustration for feeling powerless when faced with the woman's problems.

Moreover, the lack of support in the work environment and the limitation of paternity leave to five days after the child's birth³¹ reduces the time that fathers could dedicate to paternity.³² In addition, some nursing mothers still have maternity leave of only four months,^{31,33} and those informally employed do not even have such benefits. These mothers are in higher vulnerability and present higher risk for early interruption of EBF. In these cases, having partner and family support is fundamental. Besides, the supportive actions to women that work and breastfeed

need to be extended to the work environment, with the implementation of rooms specifically for breastfeeding³⁴ and daycare or daycare-aid,³³ for example.

Hence, partner support and other components of the social support network of nursing mothers during the breastfeeding period is crucial. Scientific evidence associates success of breastfeeding practices with father support.³⁵ However, considering the situations of couple conflicts and when mothers do not have partners, they end up taking care of their children alone and the overload is higher.³⁶ In these cases, the social support network should be present in all aspects. This network must be known by health professionals in order to become involved in programs, in incentive actions for breastfeeding, and in prenatal visits.³⁷

As positive aspects, this study uncovered the reality of the prenatal care performed in an HMB of a University Hospital in São Luís-MA from the perspective of mothers who received counseling from health professionals. Due to the lack of literature regarding the relation between partner support and breast interurrences in EBF, this study is extremely relevant for allowing the expansion of discussions about this theme.

The main limitations of the study were its cross-sectional design, not allowing the establishment of a temporal precedence between exposition and outcome factors, which is essential to establish causal relations; the impossibility to identify the type of support received by the nursing mothers (if it was financial, material, emotional or all of them), and it was also not possible to identify the participation of the partner in the prenatal period.

CONCLUSIONS

The study revealed that all of the evaluated nursing mothers received prenatal care with high frequency, having six or more visits in the public health system. However, a great part of the group did not receive orientation during prenatal care about BF, positioning of the infant to be breastfed, and breast care. Despite a high number of mothers reporting having received partner support to maintain exclusive breastfeeding, in situations of breast interurrences, they were not supported.

It is worth highlighting the importance of health professionals' guidance to mothers about subjects such as breastfeeding, breastfeeding practices, and childcare during prenatal, puerperium, and puericulture visits. Likewise, it is essential to involve and encourage partners to participate in appointments, assigning them with co-responsibility in childcare.

At the same time, partners and other family members need to be sensitized to support mothers and contribute for better adherence to EBF. It is also necessary to involve other components of the social support network of the mother; as such, it is suggested that, as a protective measure for EBF, paternity leave in Brazil be expanded to 20 days to assure more equality. Though already established in public policies in the country, it is important to urge business administrators and institutions to implement rooms to support breastfeeding and daycare in the work environment in order to expand their access to working women who breastfeed.

It is possible that women who are empowered with knowledge and who count on the support of their partners and social network will be able to maintain EBF during a six-month period and will have less cases of breast intercurrents, or none at all.

REFERENCES

1. Cordero MJA, García LB, López AMS, Barrilão RG, Rodríguez EH, Villar NM. Benefícios imunológicos de la leche humana para la madre y el niño. Revisión sistemática. *Nutr Hosp.* 2016;33:482-493. <http://dx.doi.org/10.20960/nh.526>
2. Victora CG, Balh R, Barros AJD, França GVA, Horton S, Krasevec J, Murch S, Sankar MJ, Walker N, Rolliins NC. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *Lancet.* 2016;387: 475-90 [https://doi.org/10.1016/S0140-6736\(15\)01024-7](https://doi.org/10.1016/S0140-6736(15)01024-7)
3. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Saúde da criança: aleitamento materno e alimentação complementar. 2. ed. Brasília: Ministério da Saúde; 2015. 184 p.: il. – (Cadernos de Atenção Básica; n. 23)
4. Ciampo LA Del, Ciampo IRL Del. Breastfeeding and the Benefits of lactation for women's Health. *Rev Bras Ginecol Obstet.* 2018;40:354–359. <https://doi.org/10.1055/s-0038-1657766>.
Organização Pan-Americana da Saúde. Organização Mundial da Saúde (OPAS/OMS). Enabling Women to Breastfeed Through Better Policies and Programmes. Global Breastfeeding Scorecard; 2018. Disponível em: <https://www.who.int/nutrition/publications/infantfeeding/global-bf-scorecard-2018.pdf?ua=1>. Acesso em: 16 maio 2019.
5. Boccolinil CS, Boccolinill PMM, MonteiroIII FR, Venâncio SI, Giugliani ERJ. Tendência de indicadores do aleitamento materno no Brasil em três décadas. *Rev Saude Publica.* 2017;51:108. <https://doi.org/10.11606/S1518-8787.2017051000029>
6. Brasil. Departamento de Ações Programáticas e Estratégicas, Secretaria de Atenção à Saúde, Ministério da Saúde. II Pesquisa de Prevalência de Aleitamento Materno nas capitais brasileiras e Distrito Federal. Brasília: Ministério da Saúde; 2009a. 108 p.
7. Rollins NC, Bhandari N, Hajebehoy N, Horton S, Lutter CK, Martines JC, Piwoz EG, Richter LM, Victora CG; Lancet Breastfeeding Series Group. Why invest, and what it will take to improve breastfeeding practices? *Lancet.* 2016;387(10017):491-504
8. Monteiro FR, Buccini GS, Venâncio SI, Costa THM. Influence of maternity leave on exclusive breastfeeding. *J Pediatr.* 2017; 93(5):475-481. <http://dx.doi.org/10.1016/j.jped.2016.11.016>
9. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Atenção ao pré-natal de baixo risco / Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. – Brasília:

- Editora do Ministério da Saúde, 2012. 318 p.: il. – (Série A. Normas e Manuais Técnicos) (Cadernos de Atenção Básica, nº 32).
10. Gómez MD, Martínéz MR, Ares EI, Alba C. Barreras percibidas por las mujeres españolas en relación a la lactancia materna. *Rev Esp Salud Pública*. 2016;90: e1-e18.
 11. Araujo OD, Cunha AL, Lustosa LR, Nery IS, Mendonça RCM, Campelo SMA. Aleitamento materno: fatores que levam ao desmame precoce. *Rev Bras Enferm*. 2008;61(4):488-92. <http://dx.doi.org/10.1590/S0034-71672008000400015>.
 12. Sousa AM, Fracoli LA, Zoboli ELCP. Práticas familiares relacionadas à manutenção da amamentação: revisão da literatura e metassíntese. *Rev Panam Salud Publica*. 2013;34(2):127-34.
 13. Ferreira TD, Piccioni LD, Queiroz PH, Silva ME, Vale NI. Influência das avós no aleitamento materno exclusivo: estudo descritivo transversal. *Einstein*. 2018;16(4):1-7. http://dx.doi.org/10.31744/einstein_journal/2018AO4293
 14. Fundo das Nações Unidas Para a Infância. Iniciativa Hospital Amigo da Criança: revista, atualizada e ampliada para o cuidado integrado: módulo 1: histórico e implementação. Brasília: Ministério da Saúde; 2008. 78 p.: il. – (Série A. Normas e Manuais Técnicos).
 15. Brasil. Ministério da Saúde. Protocolos da Atenção Básica: Saúde das Mulheres / Ministério da Saúde, Instituto Sírio-Libanês de Ensino e Pesquisa – Brasília: Ministério da Saúde; 2016.
 16. Goudard MJF, Simões VMF, Batista RFL, Queiroz RCS, Alves MTSSB, Coimbra LC. Inadequação do conteúdo da assistência pré-natal e fatores associados em uma coorte no nordeste brasileiro. *Cien Saúde Colet*. 2016;21(4):1227-1238. DOI: 10.1590/1413-81232015214.12512015
 17. Ruschi GEC, Zandonade E, Miranda AE, Ferrão AF. Determinantes da qualidade do pré-natal na Atenção Básica: o papel do Apoio Matricial em Saúde da Mulher. *Cad Saúde Colet*. 2018;26(2):131-139 DOI: 10.1590/1414-462X201800020229
 18. Carvalho DS, Novaes HMD. Avaliação da implantação de programa de atenção pré-natal no Município de Curitiba, Paraná, Brasil: estudo em coorte de primigestas. *Cad Saúde Pública*. 2004;20:S220-S230 DOI: <http://dx.doi.org/10.1590/S0102-311X2004000800017>
 19. Oliveira RPA, Patel N B, Fonseca MGM. Dificuldades na amamentação entre puéperas atendidas no hospital Inácia Pinto do Santos - HIPS, Feira de Santana/BA. *Rev Sittientibus*. 2004;30:31-46.
 20. Carrascoza KC, Possobon RF, Ambrosano GMB, Junior ALC, Moraes ABA. Determinantes do abandono do aleitamento materno exclusivo em crianças assistidas por programa interdisciplinar de promoção à amamentação. *Cad de Ciên Saúde Colet*. 2011;16(10):4139-4146 DOI: <http://dx.doi.org/10.1590/S1413-81232011001100019>.
 21. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Saúde da criança: aleitamento materno e alimentação complementar. Brasília; 2015. p. 11-2. (Série A. Normas e Manuais Técnicos. Cadernos de Atenção Básica, nº 23).
 22. Prattes LA, Schmalfuss JM, Linpinski, JM. Rede de apoio social de puérperas na prática da amamentação. *Esc Anna Nery*. 2015;19(2):310-315 DOI: 10.5935/1414-8145.20150042.
 23. Ferreira TD, Piccioni LD, Queiroz PH, Silva ME, Vale NI. Influência das avós no aleitamento materno exclusivo: estudo descritivo transversal. *Einstein* 2018;16(4):1-7. DOI: 10.31744/einstein_journal/2018AO4293
 24. Rocha GP, Oliveira MCF, Ávila LBB, Longo GZ, Cotta RMM, Araújo RMA. Condicionantes da amamentação exclusiva na perspectiva materna. *Cad. Saúde Pública*. 2018;34(6):1-13. DOI: <http://dx.doi.org/10.1590/0102-311x00045217>
 25. Diniz AB, Barberino L, Lima FS, Abreu A, Mansú M, Souza L, Horne MI, Torres C, Silva LR. Influência do Perfil Socioeconômico no Aleitamento Materno em Salvador, Bahia. *Gaz Méd*. 2007;77:S13-S22.
 26. Moreno PFBB, Schmidt KT. Aleitamento materno e fatores relacionados ao desmame precoce. *Cogitare Enferm*. 2014;19(3):576-81. DOI:<http://dx.doi.org/10.5380/ce.v19i3.32366>.
 27. Teston EF, Reis TS, Góis LM, Spigolona DN, Maran E, Silva S. Aleitamento materno: percepção do pai sobre seu papel. *Rev Enferm do Centro Oeste Mineiro*. 2018;8:e2723. DOI: 10.19175/recom.v8i0.2723.
 28. Trindade Z, Cortez MB, Dornelaz K, Santos M. Pais de primeira viagem: demanda por apoio e visibilidade. *Rev Saúde e Soc*. 2019;28(1):250-261. DOI: <http://dx.doi.org/10.1590/s0104-12902019170892>.
 29. Pinto K,RTF, Martins J,R, Campana MC, Quintamilha TDF, Zani AV, Bernardy CCF. Dificuldades na amamentação: sentimentos e percepções paternas. *J Nurs Health*. 2018;8(1): e188106. DOI: <http://dx.doi.org/10.15210/jonah.v8i1.12758>.

30. Brasil. Constituição. Constituição da República Federativa do Brasil. Brasília, DF: Senado Federal;1988. Disponível em: < http://www.planalto.gov.br/ccivil_03/Constituicao/Constituicao.htm>. Acesso em: 23 set. 2019.
31. Waba. World Alliance for Breastfeeding Action. Empower parents, enable breastfeeding, 2019. Disponível em:<<http://worldbreastfeedingweek.org>> Acesso em: 29 jun. 2019.
32. Brasil. Constituição. Constituição da República Federativa do Brasil. Brasília, DF: Senado Federal;1988. Brasil. Consolidação das Leis do Trabalho. Decreto-Lei n.º 5.452, de 1º de maio de 1943. Disponível em <http://www.planalto.gov.br/ccivil_03/decreto-lei/del5452.htm>.Acesso em: 23 set. 2019.
33. Ministério da saúde. Portaria nº 193, de 23 de fevereiro de 2010. Orienta a instalação e fiscalização de salas de apoio à amamentação em empresas públicas e privadas, com a parceria das vigilâncias sanitárias locais. Disponível em: <http://bvsms.saude.gov.br/bvs/saudelegis/anvisa/2010/prt0193_23_02_2010.html>. Acesso em: 23 set. 2019.
34. Silva BT, Santiago LG, Lamounier JA. Apoio paterno ao aleitamento materno: uma revisão integrativa. Rev Paul Pediatr. 2012;30(1):122-30 DOI: <http://dx.doi.org/10.1590/S0103-05822012000100018>.
35. Rapoport A, Piccini ARC. Apoio social e experiência da maternidade. Rev Bras Crescimento Desenvol Hum. 2006;16(1):85-96.
36. Nóbrega VCF, Melo RHV, Diniz ALM, Vilar RLA. As redes sociais de apoio para o Aleitamento Materno: uma pesquisa-ação. Saúde Debate. 2019;429-440. DOI: <http://dx.doi.org/10.1590/0103-1104201912111>.

Contributors

Silva FA participated in data collection, analysis, and interpretation, and in the review and approval of the final draft of the manuscript; Cantanhede NAC worked on conception, design, data analysis and interpretation, review and approval of the final draft of the manuscript; Fonseca PCA contributed with the conception, design, data analysis and interpretation, review and approval of the final draft of the manuscript; Conceição SIO worked on conception, design, data analysis and interpretation, review and approval of the final draft of the manuscript.

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