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THE INFLUENCE OF HEALTH EDUCATION ON BREASTFEED SELF-EFFICACY: QUASI-EXPERIMENTAL STUDY

INFLUÊNCIA DA EDUCAÇÃO EM SAÚDE NA AUTOEFICÁCIA EM AMAMENTAR: ESTUDO QUASE EXPERIMENTAL

LA INFLUENCIA DE LA EDUCACIÓN EN LA SALUD SOBRE LA AUTOEFICACIA EN AMAMANTAR: ESTUDIO CUASI-EXPERIMENTAL

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Objective: to evaluate the nursing educational intervention for the promotion of the breastfeeding self-efficacy of nursing mothers hospitalized in a maternity hospital in northern Brazil. Method: quasi-experimental, longitudinal study, composed of an intervention group (n=80) and observation group (n=78). The educative intervention occurred through conversation wheel. Data collection occurred in the period from January to March 2018. Results: in the intervention group, nursing mothers showed high breastfeeding efficacy, whereas in the observation group, the efficacy was moderate. Among nursing mothers with more schooling, who work out of home and with intact nipples, the educative intervention influenced for better breastfeeding self-efficacy. The intervention group showed higher mean breastfeeding self-efficacy and increased frequency of breastfeeding. Conclusion: for the nursing mothers hospitalized in the maternity of study, the educative intervention influenced for the maintenance of exclusive breastfeeding within the 60 first days after delivery.

Descriptors: Breast Feeding. Health Education. Maternal and Child Health. Nursing.

Objetivo: avaliar a intervenção educativa de enfermagem para a promoção da autoeficácia em amamentação em nutrizes internadas em uma maternidade do Norte do Brasil. Método: estudo quase experimental, longitudinal, composto por um grupo de intervenção (n=80) e observacional (n=78). A intervenção educativa deu-se mediante roda de conversa. A coleta de dados ocorreu no período de janeiro a março de 2018. Resultados: no grupo de intervenção

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as nutrizes apresentaram alta eficácia para a amamentação, enquanto que no grupo de observação encontrou-se moderada eficácia. Entre as nutrizes com maior escolaridade, que trabalham fora de casa e tinham mamilos íntegros, a intervenção educativa influenciou para melhor autoeficácia na amamentação. O grupo de intervenção apresentou média mais elevada para autoeficácia na amamentação e maior frequência de aleitamento materno exclusivo. Conclusão: nas nutrizes internadas na maternidade estudada, a intervenção educativa influenciou para a manutenção da amamentação exclusiva nos 60 primeiros dias após o parto.

Descritores: Amamentação. Educação em Saúde. Saúde Materno-infantil. Enfermagem.

Objetivo: evaluar la intervención educativa de enfermería para la promoción de la autoeficacia en amamantamiento en las madres lactantes en una maternidad del Norte de Brasil. Método: un estudio cuasi-experimental, longitudinal, compuesto por un grupo de intervención (n=80) y un grupo observacional (n=78). La intervención educativa ocurrió a través de rueda de conversación. La recogida de datos se produjo en el período de enero a marzo de 2018. Resultados: en el grupo de intervención, las madres lactantes mostraron una alta eficacia en amamantamiento, mientras que en el grupo observacional, la autoeficacia fue moderada. Entre las madres con mayor escolaridad, que trabajan fuera del hogar y con los pezones intactos, la intervención educativa influenció para una mejor autoeficacia en el amamantamiento. El grupo de intervención mostró mayor promedio para la autoeficacia en el amamantamiento y frecuencia aumentada del amamantamiento. Conclusión: para las madres lactantes en la maternidad estudiada, la intervención educativa influenció el mantenimiento del amamantamiento exclusivo en los 60 primeros días después del parto.

Descriptores: Lactancia Materna. Educación en Salud. Salud Materno-Infantil. Enfermería.

Introduction

Breastfeeding is of fundamental importance for the growth and development of the child, as well as for his/her physical and psychological health. Throughout the world, it is one of the fundamental pillars for the promotion and protection of the child's health, and its social impact can be quantified through the reduced medical visits, hospitalizations and drug treatments, once the nursing child has a lower risk of illness[1].

Breast milk is the most appropriate food for the child from birth up to the first years of life, contributing to the health of children and mothers[2]. This practice leads to benefits for the child's development from birth to adulthood[2]. The World Health Organization (WHO) recommends exclusive breastfeeding (EBF) up to six months and, subsequently, the introduction of complementary feeding while breastfeeding (AM) until two years or more[3].

A world panorama points out that, in the year 2015, the European continent had the lowest overall rate of breastfeeding and that only 13% of babies up to six months were exclusively breastfed. Only 23 countries had a rate of at least 60% of exclusive breastfeeding up to six months, all of which were in developing countries[4]. In the Second Survey on the Prevalence of Exclusive Breastfeeding carried out in Brazilian state capitals and the Federal District, in the year 2009, there was an EBF prevalence of 41% in those under six months old. In the Northern Region, the mean EBF was 66.2 days, and, in the city of Porto Velho, Rondônia, only 50.8% of the children were exclusively breastfed at the age of 60 days[5].

The main causes of early weaning are related to the introduction of other foods in the infants' diet before the period recommended; the child's refusal to be breastfed, which is directly related to the incorrect positioning of the newborn to breastfeed; maternal out-of-home work; the mother's refusal to breastfeed; maternal and child diseases; use of drugs by the mother; maternal feeling that the child is not well fed with that milk; and lack of efficient educational programs[6].

One of the aspects that may influence the maintenance of EBF is the maternal confidence in the ability to breastfeed. This ability is built upon four sources of information that support the breastfeeding self-efficacy: personal experience;

vicarious experience – observation of other experiences; verbal persuasion - support and encouragement of acquaintances; emotional and physiological condition - positive emotional and physical reactions in the act of breastfeeding[7]. Unlike non-modifiable or slightly modifiable variables that interfere in breastfeeding, such as marital status, educational level and socioeconomic conditions, maternal confidence is a modifiable variable. Knowing the confidence level of a puerperal woman allows identifying women at higher risk for the early weaning and implementing individualized interventions when necessary[8].

Supporting the breastfeeding is multidimensional, requiring practical, informational and emotional support[9]. Health education is essential for women to feel prepared to care for their children, including breastfeeding. Thus, the object of this research is to understand the impact of health education actions performed by the nursing staff in the maternal confidence to breastfeed.

Notably, educational processes, when performed periodically, can contribute to the self-care. However, there are still few discussions about whether single and punctual actions in the hospital environment can bring benefits to the puerperal women. Therefore, we believe that there is still space in the academic environment to discuss the effectiveness of different educational actions performed by health professionals in the maintenance of EBF.

Thus, the objective of this study was to evaluate the nursing educational intervention for the promotion of breastfeeding self-efficacy in mothers hospitalized in the rooming-in of a maternity in northern Brazil.

Method

Quasi-experimental, longitudinal study, carried out in a municipal maternity that meets women for the assistance to delivery, post-abortion and family planning in the city of Porto Velho, Rondônia, Brazil.

The sample was calculates using the Epi Info®7.2.1.0, considering the population of 4,084 puerperal women admitted to the institution in the year 2017, a significance level of 95%, margin of error of 5%, and moderate or high self-efficacy of 87% of the subjects[10]. The sample obtained was 167 participants. Applying 10% of data loss, the desired final sample was 184 nursing mothers.

The sample included puerperal women with preterm births, hospitalized in the rooming-in, with at least 6 and up to 48 postpartum hours, aged over 12 years, residing in Porto Velho, with fixed or mobile phone and practicing EBF during hospitalization. There was exclusion of: the participants that were not awake agreed and lucid at data collection; bearers of the human immunodeficiency virus (HIV) or hepatitis; newborn infants unable to be breastfed due to bad-formations.

The intervention (educational action on exclusive breastfeeding) and observation (met by a multidisciplinary team of the institution according to the service's routine) groups were composed through a draw of the nurseries. In this way, all pregnant women in the nursery were invited to compose the corresponding intervention or observation group.

Previously trained researchers performed the intervention and data collection, which occurred at different times, without any communication between the participants of the two groups (intervention or observation).

The intervention group received guidance on EBF through conversation wheels using as visual support the serialized album "Promoting breastfeeding"[11]. This album covers the following items: the importance of breastfeeding, free demand on breastfeeding, breastfeeding positions, proper latch, breastfeeding length, expression and storage and disadvantages of using soothers and pacifiers. After applying the questionnaire and observing the breast problems, the researchers helped positioning the baby, in the proper latch for the breastfeeding and in the breast massage and expression when necessary. The educative intervention lasted 20 through 30 minutes and was based on the self-efficacy theory of Bandura[12], who defends the idea that the individual has abilities that enable him/her

to use symbols (cognitions) to perform a specific action required to achieve certain result.

The data collection period in the observation group occurred during eight consecutive days in March 2018. In the intervention group, the collection lasted 24 days, performed daily during January and February 2018. The collection in this group was carried out immediately after the intervention.

Data collection used a questionnaire containing two parts: sociodemographic information, obstetric history and about the current and previous breastfeeding; and the Breastfeeding Self-Efficacy Scale - Short-Form (BSES-SF).

The reduced BSES-SF was validated in Brazil[13]. The scale is composed of 14 items distributed in two domain categories: Technical Thoughts - physical actions that a mother should perform and that are necessary for a successful breastfeeding; Intrapersonal Thoughts – mother's perceptions of breastfeeding, including attitudes and beliefs related to successful breastfeeding. Each item of the scale items receives a score that can vary from 1 (strongly disagree) to 5 (strongly agree), totaling from 14 to 70 points. In this study, the researcher adapted only two Likert-scale score for each category: disagree (0 point), and agree (1 point). Thus, the final score of categories was: 0 through 5 points for low self-efficacy, 6 through 10 points for moderate self-efficacy, and 11 through 14 points for high breastfeeding self-efficacy.

This was a longitudinal study, with follow-up of participants during 60 days after delivery, performing telephone contact on day 7, 15, 60, 45 and 60. The reason for the cut-off point of the study follow-up until the 8th postpartum week is the mean Brazilian EBF length, which is 54.1 days[5].

Data were processed using the statistical package Stata® 15.0 and the Student t test was used considering statistically significant $p<0.05$.

This study was previously approved by the Research Ethics Committee (REC) of the Health Center of the Federal University Foundation of Rondônia, following the principles of Resolution n. 466/12 of the National Research Council[14], in March 2018, under Opinion n. 2,548.115. The data were collected after signing of the Informed Consent Form (ICF) for participants aged over 18 years and the Informed Assent Form (IAF) for participants underage.

Results

The study comprised 184 nursing mothers; of this total, there were 13% (n=12) of losses or refusals in the intervention group and 15% (n=14) of losses in the observation group and the final sample consisted of 158 participants. The predominant age range was from 19 to 30 years, but 17% of the participants were underage (Table 1). Most puerperal women had a partner, did not work out of home and had more than nine years of study. Regarding the data about pregnancy, the majority was multiparous and had vaginal delivery.

Table 1 – Sociodemographic, obstetric and breastfeeding characteristics. Porto Velho, Rondônia, Brazil - 2017 (N=158)

(continued)

Variables	Intervention Group		Observation Group	
	n=80	%	n=78	%
Age Range				
<18 years	17	21.2	10	12.8
19-24 years	33	41.2	35	44.9
25-30 years	22	27.5	24	30.8
31-35 years	7	8.8	7	9.0
> 36 years	1	1.3	2	2.6
Marital Status				
Without partner	11	13.7	14	17.9
With partner	69	86.3	64	82.1

Table 1 – Sociodemographic, obstetric and breastfeeding characteristics. Porto Velho, Rondônia, Brazil - 2017 (N=158)

(conclusion)

Variables	Intervention Group		Observation Group	
	n=80	%	n=78	%
Out-of-home work				
No	58	72.5	62	80.8
Yes	22	27.5	16	19.2
Education				
≤9 years	25	31.3	20	25.6
>9 years	55	68.8	58	74.4
Number of pregnancies				
Primigravida	29	36.3	31	39.7
Polygravida	51	66.8	47	60.3
Type of Delivery				
C-section	21	26.3	22	28.2
Vaginal	59	73.7	56	71.8
Type of Nipples				
Flat/Half-flat	15	18.8	8	10.3
Protruding/Half-protruding	65	81.2	69	88.4
Inverted/Pseudo-inverted	-	-	1	1.3
Breasts' Conditions				
Saggy	72	90.0	57	73.1
Globus	5	6.25	18	23.1
Engorged	3	3.75	3	3.8
Nipples' Conditions				
Intact	62	77.5	43	55.1
Injured	18	22.5	35	44.9
Problems in previous breastfeeding (n=98)				
No	37	72.5	32	68.0
Yes	14	27.5	15	32.0
Problems in current breastfeeding				
No	57	71.2	40	51.3
Yes	23	28.8	38	48.7
Type of Problem				
Incorrect latch	21	26.3	32	41.0
Little milk	2	2.5	6	7.7
No problem	57	71.2	40	51.3
Guidelines about breastfeeding				
No	-	-	23	29.5
Yes	80	100	55	70.5
Guideline Site				
Prenatal	-	-	8	10.3
Maternity	42	52.5	29	37.2
Prenatal and maternity	38	47.5	18	23.1
No guideline received	-	-	23	29.5

Source: Created by the authors.

Note: Conventional signal used:
- Numerical data equal to zero not resulting from rounding.

During the interview, only a puerperal woman in the intervention group had no milk/colostrum. Most puerperal women had flaccid breasts and protruding or half-protruding nipples. The nipples were injured in 44.9% of the puerperal women in the observation group and in 22.5% of the women in the intervention group.

Concerning the breastfeeding experience, 72.5% of the intervention group and 68.0% of the observation group reported having no problems with previous breastfeeding. In relation to the current breastfeeding Son, 28.8% of the intervention group and 48.7% of the observation group reported problems to breastfeed the baby, with "incorrect latch" as the predominant type of problem.

Regarding the guidelines about breastfeeding, there was a "conversation wheel"-type educational intervention with the puerperal women, and, in this group, 47.5% had received guidelines during the prenatal period. In the observation group, 29.5% reported not having received any guideline about breastfeeding and 37.2% reported having received guidelines about breastfeeding only in the maternity.

All nursing mothers in the intervention group showed high breastfeeding self-efficacy (Table 2). Among the participants of the observation group, those with flat/protruding (Mean=10.14; SD=2.52) and inverted (Mean 10) nipples, engorged breasts (Mean=9.8; SD=3.76), problems in the current breastfeeding (Mean=10.59; SD=2.69), and nursing mothers with "incorrect latch" problems (Mean=10.44; SD=2.7) had moderate breastfeeding self-efficacy. In this study, no participant showed low self-efficacy.

Only between the age extremes and women with less than nine years of studies, the mean self-efficacy among the intervention group was not superior to the observation group. Nevertheless, the differences between these groups were not statistically significant.

Table 2 – Mean breastfeeding self-efficacy and sociodemographic, obstetric and breastfeeding characteristics. Porto Velho, Rondônia, Brazil – 2017 (N=158) (continued)

Variables	Intervention Group (n=80)		Observation Group (n=78)		p-value
	Mean	(SD)	Mean	(SD)	
Age Range					
<18 years	12.23	1.78	12.28	2.70	0.47
19-24 years	12.14	1.60	11.31	2.7	0.08
25-30 years	11.94	1.51	11.52	2.13	0.23
31-35 years	12.16	0.74	11.50	2.08	0.28
> 36 years	12	-	12.6	1.5	-
Marital Status					
Without partner	12.20	2.30	11.42	2.35	0.22
With partner	12.11	1.52	11.54	2.35	0.05
Out-of-home work					
No	11.98	1.64	11.66	2.19	0.18
Yes	12.47	1.6	11.00	2.8	0.04
Education					
≤9 years	11.83	1.76	12.22	1.55	0.22
>9 years	12.25	1.57	11.34	2.5	0.01
Number of pregnancies					
Primigravida	12.25	1.75	11.34	2.37	0.05
Polygravida	12.04	1.57	11.64	2.32	0.17
Type of Delivery					
C-section	12.28	1.90	11.31	2.83	0.09
Vaginal	12.05	1.53	11.61	2.14	0.11
Type of Nipples					
Flat/Half-flat	12.00	1.64	10.14	2.52	0.05
Protruding/Half-protruding	12.20	1.69	11.69	2.29	0.08
Inverted/Pseudo-inverted	-	-	10	-	-

Table 2 – Mean breastfeeding self-efficacy and sociodemographic, obstetric and breastfeeding characteristics. Porto Velho, Rondônia, Brazil – 2017 (N=158) (conclusion)

Variables	Intervention Group (n=80)		Observation Group (n=78)		p-value
	Mean	(SD)	Mean	(SD)	
Nipples' Conditions					
Intact	12.10	1.64	11.39	2.34	0.04
Injured	12.16	1.65	11.69	2.35	0.20
Breasts' Conditions					
Saggy	12.11	1.60	11.48	2.45	0.08
Globus	12.80	1.30	11.84	1.84	0.09
Engorged	11.00	2.60	9.80	3.76	0.30
Problems in previous breastfeeding (n=98)					
No	12.02	1.61	11.45	2.51	0.13
Yes	12.08	1.50	12.07	1.85	0.49
Problems in current breastfeeding					
No	12.33	1.52	12.23	1.73	0.38
Yes	11.59	1.78	10.59	2.69	0.05
Type of Problem					
Incorrect latch	11.40	1.75	10.44	2.7	0.07
Little milk	13.50	0.70	12.66	1.96	0.20
No problem	12.33	1.52	12.15	1.75	0.29
Guidelines about breastfeeding					
No	-	-	11.63	1.86	-
Yes	12.12	1.63	11.48	2.52	0.05
Guideline Site					
Prenatal	-	-	11.42	1.61	-
Maternity	12.21	1.54	11.35	2.90	0.08
Prenatal and maternity	12.02	1.73	11.75	2.22	0.30
No guideline received	-	-	11.63	1.86	-

Source: Created by the authors.

Note: Conventional signal used:
- Numerical data equal to zero not resulting from rounding.

Among women with schooling over nine years (Mean 12.25 versus 11.34; p=0.01) and out-of-home work (Mean 12.47 versus 11.0; p=0.04), there were significant differences between the mean self-efficacy. There was also better self-efficacy among women with intact nipples in the intervention group (Mean 12.10 versus 11.39; p=0.04).

The educative intervention was important in maintaining exclusive breastfeeding over time. Throughout the follow-up period (60 days), the intervention group had higher frequency of exclusive breastfeeding when compared to the observation group (Table 3). The mean self-efficacy reported during hospitalization was higher among the intervention group and remained statistically significant in the five moments of the follow-up.

Table 3 – Mean self-efficacy and exclusive breastfeeding up to a postpartum days. Porto Velho, Rondônia, Brazil – 2017 (N=158) (continued)

Variables	Intervention Groups		Observation Group		p
	n (%)	Mean (SD)	n (%)	Mean (SD)	value
Exclusive breastfeeding day 7					
Yes	79 (98.7)	12.13 (1.64)	75 (96.1)	11.52 (2.34)	0.03
No	1 (0.3)	11.00 (...)	3 (3.9)	11.66 (2.51)	...

Table 3 – Mean self-efficacy and exclusive breastfeeding up to a postpartum days. Porto Velho, Rondônia, Brazil – 2017 (N=158)

(conclusion)

Variables	Intervention Groups		Observation Group		p
	n (%)	Mean (SD)	n (%)	Mean (SD)	value
Exclusive breastfeeding day 15					
Yes	74 (91.2)	12.14 (1.64)	71 (91.0)	11.40 (2.36)	0.01
No	6 (7.5)	11.85 (1.67)	7 (9.0)	12.71 (1.79)	0.18
Exclusive breastfeeding day 30					
Yes	74 (92.5)	12.14 (1.65)	63 (80.7)	11.45 (2.32)	0.03
No	6 (7.5)	11.8 (1.48)	15 (19.3)	11.8 (2.45)	0.50
Exclusive breastfeeding day 45					
Yes	70 (87.5)	12.14 (1.66)	42 (53.9)	10.74 (2.53)	<0.01
No	10 (12.5)	12.00 (1.49)	36 (46.1)	12.36 (1.79)	0.26
Exclusive breastfeeding day 60					
Yes	67 (83.75)	12.11 (1.67)	36 (46.15)	10.66 (2.59)	<0.01
No	13 (16.25)	12.15 (1.46)	42 (53.85)	12.21 (1.86)	0.44

Source: Created by the authors.

Note: Conventional signal used:
... unavailable numerical data.

Discussion

In the intervention group, the means indicated that nursing mothers showed a higher level of breastfeeding self-efficacy when compared to the observation group. The educative intervention helped raise the level of self-efficacy among the participants with schooling over nine years, who worked out of home and with intact nipples.

In this study, 17% of the puerperal women were underage, corroborating the national tendency, in which, in the year 2012, the frequency of pregnancy in adolescence was 21.1%[15]. The delivery among adolescents was the first cause of hospitalization of women aged between 10 and 19 years during the year 2012 in Brazil[15]. Teenage pregnancy is the main cause of death of young women aged between 15 and 19 years in developing countries and is associated with low schooling, school dropout, low socioeconomic level and inadequate prenatal care[16]. In addition, age below 20 years is an important factor for the early weaning – the adolescent mother shows a higher frequency of weaning when compared to adult mothers[17]. There was a higher mean breastfeeding self-efficacy in the intervention group, with the exception of the puerperal women at age extremes, i.e., adolescents or women aged over 35 years. A study conducted in 2007 says that the higher women's age, the better they breastfeed[13].

Most participants had a partner. The partner's presence during the phase of breastfeeding clearly contributes to its maintenance[11]. A study conducted in Canada observed that unmarried women had higher risk for early interruption of breastfeeding when compared to married women[18]. Another study, conducted in Uganda, West Africa, with 84 puerperal women who attended a teaching hospital, pointed out that 6 of every 10 women showed high breastfeeding self-efficacy, and the factors associated were the partner's presence and receiving support from health professionals to breastfeed during hospitalization for childbirth[19].

In this study, there was a predominance of polygravida women and most of them indicated having no problems in breastfeeding their previous children. Previous breastfeeding experience interferes in the security to breastfeed the next baby and this interference can be positive or negative[20].

Regarding the type of delivery, most women had vaginal delivery, with a number of C-sections

below 30%. This low frequency of cesarean sections was mainly because the maternity had the title of Child Friendly Hospital, which advocates the vaginal delivery as preferable birth route, and this fact contributes to the early initiation of breastfeeding[21-22].

In this study, puerperal women with intact nipples had a higher mean self-efficacy in the intervention group when compared to the observation group, indicating that these puerperal women were more likely to learn about breastfeeding and, consequently, they felt safer to keep the EBF. Engorged breasts, flat and inverted, injured or sore nipples, maternal concern with the quality and quantity of milk, stress and anxiety are factors that negatively affect breastfeeding[23]. The presence of pain and maternal anxiety hinders breastfeeding, and the multiprofessional team is responsible for offering support. The health team must observe the signs and symptoms that puerperal women can present during hospitalization, reinforcing about the process of mil production and milk letdown and refer them for breastfeeding groups, thus avoiding the interruption of breastfeeding[23].

Some women had not received any information on breastfeeding during the prenatal period or even in the maternity. Appropriate guidelines during the pre-natal foster confidence in breastfeeding[20]. The follow-up by a health care professional benefits the preparation of the mother and the family for breastfeeding. Pregnant women should be informed about the benefits of the practice, the disadvantages of other milks and breastfeeding techniques to increase the maternal skills and self-confidence[20].

The educative intervention performed once during hospitalization in the maternity influenced the maintenance of exclusive breastfeeding during the following two months. The intervention group showed highest mean self-efficacy declared during the hospitalization, and this fact reflects on the maintenance of exclusive breastfeeding up to 60 days.

A prospective cohort study carried out in southern Brazil, in the year 2012, showed that hospitals with title of Child Friendly, which encouraged early and exclusive breastfeeding during hospitalization in the maternity, had a higher mean BFE length during the first four months of life of newborns when compared to other hospitals[21]. A quasi-experimental study conducted in Taiwan, with 214 participants, found that the accomplishment of a single conversation-wheel meeting about breastfeeding was able to improve the puerperal women's self-efficacy and the BFE during the first four through five weeks of life of newborns when compared to those who received the routine health care[24]. Another study, conducted in nine maternity hospitals in Denmark with 1476 participants, assessed the impact of an educative action using a pamphlet and individualized counseling to mothers during hospitalization[25]. The authors found that the intervention did not affect the breastfeeding self-efficacy, however, fewer children were readmitted one post-natal week in comparison with the reference group, and, within six months after the birth, more children were breastfed exclusively and with greater frequency in the intervention group[25].

Among the potentialities of this study, we can highlight the use of the Breastfeeding Self-Efficacy Scale - Short-Form (BSES-SF). This scale is recognized and used worldwide, and allows comparing the results of studies. Additionally, a study conducted in France with 149 participants emphasized that this scale can be used to identify, at an early stage, either in the maternity or in prenatal care, the mothers that do not feel able to breastfeed[26].

Conclusion

The breastfeeding self-efficacy scale showed to be a quick and easy tool to identify the profile of nursing mothers, collaborating to planning individualized educational actions, aiming to improve the confidence of the nursing mother and the maintenance of EBF. The educative intervention, even when performed in a single and brief moment, but focused on nursing mothers, based on the self-efficacy theory and using the method of conversation, was enough

to increase self-efficacy of participants to breastfeed and contributed to the maintenance of EBF in the first two months of the child's life.

Other forms of intervention can be experienced aiming to maintain the EBF during the first six months of the child's life, such as the use of information technology to send text messages by phone or use of applications for self-directed learning about breastfeeding. They provide support for rapid, inexpensive and broad access to puerperal women, but that still need to be tested regarding their effectiveness.

Collaborations:

1 – conception, design, analysis and interpretation of data: Sandra Maria Schultz, Kátia Fernanda Alves Moreira and Priscilla Perez da Silva Pereira;

2 – writing of the article and relevant critical review of the intellectual content: Sandra Maria Schultz, Kátia Fernanda Alves Moreira, Priscilla Perez da Silva Pereira, Lerissa Nauana Ferreira, Marcos Antônio Sales Rodrigues and Daiana Evangelista Rodrigues Fernandes;

3 – final approval of the version to be published: Sandra Maria Schultz, Kátia Fernanda Alves Moreira, Priscilla Perez da Silva Pereira, Lerissa Nauana Ferreira, Marcos Antônio Sales Rodrigues and Daiana Evangelista Rodrigues Fernandes.

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