



Effects of an educational technology on self-efficacy for breastfeeding and practice of exclusive breastfeeding*

Efeitos de uma tecnologia educativa na autoeficácia para amamentar e na prática do aleitamento materno exclusivo

Efectos de una tecnología educativa en la autosuficiencia para amamentar y en la práctica de la lactancia materna exclusiva

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ABSTRACT

Objective: To evaluate the effects of using a flipchart (serial album) on maternal self-efficacy in breastfeeding and its effects on exclusive breastfeeding (EBF) in children's first two months of life. **Method:** Clinical trial in Recife, Northeastern Brazil, with 112 women in the third trimester of gestation, randomly distributed in intervention group (IG) and control group (CG). The intervention was the use of the flipchart in IG. Data collection was performed through interviews in the prenatal period, and telephone contact at second, fourth and eighth weeks postpartum. The Breastfeeding Self-Efficacy Scale-Short-Form (BSES-SF) was used to measure self-efficacy scores. In the analysis, was used descriptive, bivariate statistics through tests of comparisons of proportions and means, and relative risk assessment. **Results:** There was a statistically significant difference in mean values of self-efficacy scores between women in the IG and CG ($p < 0.001$) and in EBF rates ($p < 0.001$). The probability of exclusively breastfeeding in IG was twice as high than in CG (RR 2.2, CI 1.51-3.21). **Conclusion:** The use of a flipchart as an educational tool had positive effects on self-efficacy scores for breastfeeding and in maintenance of EBF in the IG. Brazilian Registry of Clinical Trials: RBR-5N7K99.

DESCRIPTORS

Breast Feeding; Self Efficacy; Educational Technology; Health Education; Maternal-Child Nursing.

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INTRODUCTION

Discontinuation of exclusive breastfeeding (EBF) before 6 months of life is an event observed worldwide regardless of the reason, in spite the benefits of this practice for both child and the mother⁽¹⁾. In low- and middle-income countries, there are prevalences below 37% in children under 6 months of age⁽²⁾. This percentage is similar to that found in the evaluation of the breastfeeding indicators trend in Brazil in the last three decades⁽³⁾. However, between 2006 and 2013, there was a reduction in the prevalence of EBF of 0.3 and 15.1 percentage points among children aged from 0 to 2 months, and from 3 to 5 months, respectively⁽³⁾.

The influence of psychosocial factors in the process of early interruption of breastfeeding is evident in the literature⁽⁴⁻⁵⁾. Maternal trust in breastfeeding, or lack thereof, is an important variable not only to initiate breastfeeding but also to maintain exclusive breastfeeding⁽⁶⁻⁷⁾. High self-efficacy scores for breastfeeding were positively associated with exclusive breastfeeding between 4 and 6 weeks postpartum⁽⁹⁻¹⁰⁾, and women who report lack of confidence in breastfeeding have about two to three times more chances of weaning the child in that period⁽⁸⁾.

Expectations or beliefs in self-efficacy constructed by women can influence judgment about their ability to initiate breastfeeding, overcome difficulties and continue the practice⁽⁷⁾. These are related to personal experience, model observation (understood as vicarious experience with breastfeeding), verbal persuasion of influential people for breastfeeding, and factors such as pain, anxiety and fatigue that may interfere with women's confidence in breastfeeding⁽⁷⁻⁸⁾ and consequently in the prevalence of EBF.

Recent evidence on reduced prevalence of EBF in children aged under 6 months is an alert to the need to propose new strategies for its promotion, and for women's protection and support. Such strategies should include the various sectors of society and contribute to increase the duration of breastfeeding⁽³⁾.

In a meta-analysis study, was verified the efficacy of educational interventions initiated in prenatal care on the prevalence of EBF at 6 months⁽¹¹⁾. Maternal self-efficacy is a predictor for breastfeeding that can be modified through educational interventions, which in turn can minimize negative influences of beliefs in maternal self-efficacy for breastfeeding.

The aforementioned aspects justify performing prenatal interventions with educational tools allowing an approach from health educators in order to give confidence to women in their abilities to breastfeed. Thus, the aim of this study was to evaluate the effects of using a flipchart (serial album) during the prenatal period on maternal self-efficacy for breastfeeding, and the repercussion of this educational intervention on exclusive breastfeeding in the first 2 months of the child's life.

METHOD

TYPE OF STUDY

A randomized controlled intervention study that investigated the primary and secondary outcomes of maternal self-efficacy for breastfeeding and the incidence of exclusive breastfeeding at 2nd, 4th, and 8th weeks of the child's life, respectively. Figure 1 has the graphical representation of the steps of the study.

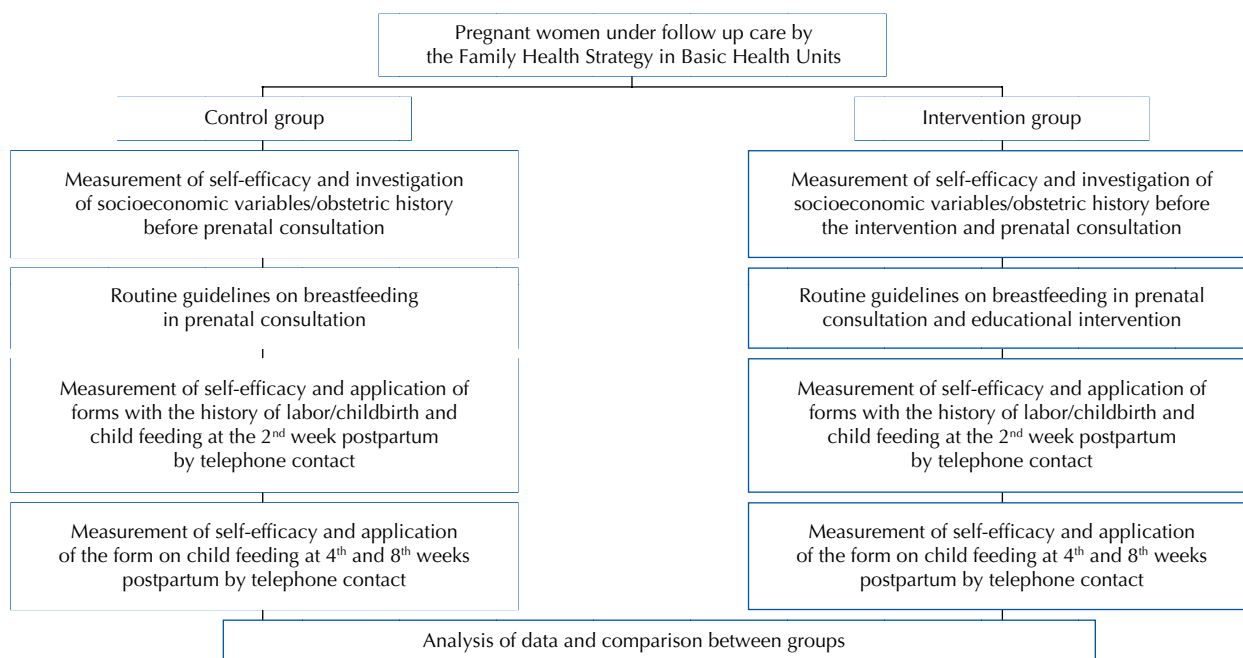


Figure 1 – Flowchart of steps of the study.

POPULATION/STUDY SCENARIO

The population was composed of pregnant women. The study was conducted at Basic Health Units (Portuguese acronym: UBS) of the Sanitary District IV in the city of Recife (state of Pernambuco), northeastern region of Brazil. This district was selected because it is part of the coverage area of the Universidade Federal de Pernambuco. The University is responsible for the development of research that subsidizes actions for promoting the well-being of this community.

Sanitary District IV is subdivided into five territories where the 15 health units are located. Twenty-nine Family Health Teams (Portuguese acronym: ESF) work in these units, and they include community health agents, nurses, dentists, physicians and nursing technicians.

INCLUSION AND EXCLUSION CRITERIA

The study included women who met the following eligibility criteria: pregnant at the 3rd trimester of pregnancy, performing prenatal care with nurses at the Basic Health Units in the period between December 2012 and August 2013 regardless of parity, and who verbalized their desire to breastfeed their babies; older than 18 years; literate and with a landline or mobile telephone. Women with multiple gestation and/or clinical restrictions for breastfeeding were excluded.

SAMPLE DEFINITION

A formula for comparison of two groups was used for sample calculation⁽¹²⁾. The proportion considered was 30% possibility of the primary outcome in control group, and 55% in intervention group, alpha error of 5%, beta error of 0.84%, and loss of 15%. The final sample consisted of 66 pregnant women in intervention group (IG) and 66 in control group (CG), in a total of 132 pregnant women.

Cluster randomization was chosen for randomly distributing participants in groups. Through this technique, preexisting groups of patients or social units are allocated randomly in intervention and control groups. In this study, cluster randomization was adopted to avoid contamination. This technique is adequate for situations when it is difficult to apply the intervention only in subjects of the intervention group without this influencing the subjects of control group, thereby minimizing the contagion bias⁽¹²⁾.

Initially, were identified the conglomerates constituted by five territories of the Sanitary District IV. Taking into account the number of Family Health Teams, were grouped the clusters A (territory five), B (four), C (three) and D (one and two). Then, by means of simple random sampling, a draw was made for the allocation of conglomerates/territories in intervention and control groups. The intervention group included pregnant women under care of nurses from 14 Family Health Teams of territories three and five, denominated conglomerates A and C. The control group included pregnant women under care of 15 Family Health Teams in territories one, two and four, denominated conglomerates B and D.

From the allocation of family health teams in IG and CG, was made a draw for a team from each group to start

data collection. Women at the 3rd trimester of gestation (as identified by family health team nurses) were part of the sample. After completing collection in the teams, was made a new draw for the allocation of pregnant women in IG or CG, and so on until reaching the adequate sample number.

INSTRUMENTS FOR DATA COLLECTION

For characterization of the baseline of research, were used the following forms with women in control and intervention groups: socioeconomic conditions (age, marital status, occupation, educational level, family income); obstetric history (number of pregnancies) and previous breastfeeding experience (time of last child's EBF, prenatal guidelines on breastfeeding). After childbirth, were investigated the variables related to labor/birth history and feeding history of the child.

For assessment of maternal self-efficacy for breastfeeding throughout all stages of the study, was applied the Breastfeeding Self-Efficacy Scale – Short-Form (BSES-SF). The BSES-SF is a Likert scale with 14 items organized into two domains, namely: technical and intrapersonal thoughts⁽⁶⁾. The scale was validated in Brazil with Cronbach's alpha coefficient of 0.7, and was considered an instrument capable of measuring the confidence of Brazilian women in their ability to breastfeed⁽¹³⁾. Women attributed scores ranging from 1 (totally disagree) to 5 (strongly agree) hence the minimum score was 14, and maximum score was 70. The higher the sum of scores, the higher the maternal self-efficacy for breastfeeding.

PILOT STUDY

The pilot study was conducted to check the suitability of data collection instruments and forms for characterization of socioeconomic conditions, the confidence and ability of interviewers to apply the BSES-SF, the obstetric history and previous experience of pregnant women with breastfeeding, and the use of the flipchart in the IG. Twelve pregnant women in IG and nine in CG under prenatal care in Basic Health Units in a different Sanitary District from the study district participated. They were evaluated until the 2nd week postpartum. These procedures ensured greater security and methodological accuracy in data collection.

DATA COLLECTION

Data collection was performed in five stages. The first two were individual interviews conducted in reserved rooms on the days of prenatal consultations in the Basic Health Units. In the third, fourth and fifth stages, women of the control and intervention groups were interviewed by telephone.

In the first stage, interviews in the two groups lasted approximately 20 minutes. At that moment, was collected information to characterize the baseline of research and measure self-efficacy for breastfeeding before routine prenatal consultation in the CG, and before the educational intervention and routine consultation in the IG.

Pregnant women of both groups were instructed on the significance of BSES-SF scores and self-application of the scale with assignment of values ranging from 1 to 5 for each item. It was clarified there would be no right or wrong answers,

and the evaluation should be based on their own perception of items on breastfeeding. To facilitate the comprehension of the scale items, pregnant women were asked to make the first reading in a low voice, followed by reading aloud each item of the scale. If they still had difficulty with the text, information was provided to create more confidence in the self-assessment.

At the end of the first stage, it was arranged with every participant the most appropriate time for telephone interviews for research follow up. A copy of the BSES-SF scale without any notes on scores of the first evaluation was given to all women in control and intervention groups in order to guide the interviews by telephone during the follow-up of the study.

Women in both groups underwent routine prenatal care. The Brazilian Ministry of Health recommends consultations every fortnight from the 28th to 36th week of gestation, weekly from the 36th to the 41st week, and that all pregnant women receive guidance on the importance of breastfeeding for them and their children⁽¹⁴⁾.

In the second stage, after women in the intervention group performed the routine prenatal visit, they received the intervention. The educational technology used was the flipchart titled 'I can breastfeed my son'. It was developed from the concept of self-efficacy to breastfeed. The development of the flipchart was based on the literature on breastfeeding practices, and from the BSES-SF items structured with seven illustrations and their respective scripts. Ten judges with clinical experience in breastfeeding and knowledge in health education validated the appearance and content of the flipchart. The Content Validity Index was 0.92 for the pictures, and 0.97 for the scripts⁽¹⁵⁾.

The flipchart is 40 centimeters wide, 32 centimeters high and has nine sheets of paper distributed as follows: cover, seven pictures with their respective scripts and datasheet. Pictures are exposed to the group during the educational intervention, and the script on the back is aimed at the professional⁽¹⁵⁾. The material structure is suitable for individualized interventions.

The album illustrations include sources of information related to beliefs in breastfeeding self-efficacy⁽¹⁵⁻¹⁶⁾. The pictures and scripts enable health professionals to rescue the personal experience of each woman with breastfeeding. The vicarious experience is experienced by the visualization of images of another woman breastfeeding. The scripts guide the verbal persuasion with positive messages issued to women. In addition, the use of the flipchart makes it possible to minimize the impact of women's somatic and emotional states at the beginning of the lactation process. The pictures guide the prevention of problems such as fissures and breast engorgement, clarify the causes of crying, and the signs of satiety of babies on exclusive breastfeeding.

The educational intervention was individual counseling in a single moment lasting between 30 and 40 minutes. Women's scores in each BSES-SF item were evaluated at the first stage of the study to identify those with lower efficacy for breastfeeding. The pictures/scripts of the flipchart related to these items were discussed with each woman by focusing the educational intervention on their needs.

During the intervention, the flipchart was used to build, model and/or change beliefs in breastfeeding self-efficacy. The pictures in the flipchart helped reinforce positive breastfeeding

experiences and reshape negative experiences. Verbal persuasion was mediated by a positive focus on each woman's ability to nurture her child, and the vicarious experience was approached with flipchart images of a woman breastfeeding, signs of the correct latch, and handling of the puerperal breast. The pictures addressing the prevention of cracks, engorgement, and the baby's crying helped to minimize the impact of stress, pain and fatigue in somatic and emotional states.

In the third, fourth and fifth stages (corresponding to 2nd, 4th and 8th weeks postpartum), were conducted the interviews by telephone. A research assistant who was previously trained by means of a standard protocol designed to guide data collection contacted women in the control and intervention groups. The research assistant was unaware of women's allocation in the groups in order to make it a blind study.

Two instruments were applied at the third stage. One for collecting information on conditions of labor, childbirth and newborns' type of feeding at hospital discharge. The other instrument was used to investigate the breastfeeding situation of newborns in their second week of life. In the fourth and fifth stages, the instrument on the breastfeeding situation was reapplied at 4th and 8th weeks of the child's life. The BSES-SF scale was applied in all follow-up interviews of the study.

For the analysis, data were typed in double entry, validated in the Epi Info version 6.0 and subsequently exported to the Statistical Package for the Social Sciences (SPSS Inc., Chicago, United States) version 14.0. The chi-square test was used to test the homogeneity of socioeconomic, obstetric and breastfeeding experiences in the IG and CG, and the Fisher's Exact test was used to compare proportions in categorical variables.

The Kolmogorov-Smirnov test was used for the analysis of normality distribution of continuous variables of age and self-efficacy for breastfeeding in the prenatal period at 2nd, 4th and 8th weeks postpartum. In normal distributions, the student's t-test was used to compare the means. When the distribution did not meet the normality criterion, was adopted the Mann-Whitney test. The relative risk was estimated to analyze the effect of the educational intervention on the incidence of EBF in the IG and CG. All analyzes were performed using the 5% level of significance.

ETHICAL ASPECTS

The research was approved by the Research Ethics Committee of the Health Sciences Center of the Universidade Federal de Pernambuco under number 299.734, following Resolution number 466/2012 of the National Health Council, and was registered in the Brazilian Registry of Clinical Trials under number RBR-5n7k99.

RESULTS

Of the 132 eligible pregnant women, 112 completed the four stages of the study. There was loss of 20 women during the follow-up period, of which ten were from the IG, nine from the CG participated only in the first stage because they did not answer telephone contacts, and a woman of the CG was followed up until the second stage and asked to leave the study.

Thus, the follow-up of the study up to 8th week postpartum was performed with 56 women in the IG and 56 in the CG.

The intervention and control groups were homogeneous in most variables, since there was no statistically significant difference in relation to marital status, occupation, educational level, family income, number of pregnancies, previous experience with breastfeeding, time of exclusive breastfeeding of the last child, and routine guidelines on breastfeeding during prenatal care. However, the age group variable was not similar between groups (p=0.002) (Table 1).

Table 1 – Pregnant women’s socioeconomic characteristics according to study group – Recife, PE, Brazil, 2014.

VARIABLES	Group				p-value
	Intervention		Control		
	n	(%)	n	(%)	
Age range (years)					
≤ 19	9	(16.1)	20	(35.7)	0.002 ¹
20 - 30	28	(50.0)	31	(55.4)	
31 - 43	19	(33.9)	5	(8.9)	
Marital status					
Married/common-law marriage estável	50	(89.3)	46	(82.1)	0.280 ¹
Single/Separated	6	(10.7)	10	(17.9)	
Occupation					
Student	3	(5.4)	6	(10.7)	0.584 ²
Housewife	35	(62.5)	37	(66.1)	
Formal employment	18	(32.2)	13	(23.2)	
Time spent away from home*					
12 h	10	(50.0)	6	(33.3)	0.085 ²
8 h	7	(31.8)	3	(16.7)	
6 h	4	(18.2)	5	(27.8)	
4 h	0	(0.0)	4	(22.2)	
Educational level (years)					
< 8	16	(28.6)	14	(25.0)	0.846 ¹
8 - 11	32	(57.1)	35	(62.5)	
> 11	8	(14.3)	7	(12.5)	
Family income (minimum wage)**					
< 1	8	(14.8)	7	(13.5)	0.715 ¹
1	25	(46.3)	23	(44.2)	
2	14	(25.9)	11	(21.2)	
≥ 3	7	(13.0)	11	(21.2)	

*1 case ignored in CG.

** 2 women in IG and 4 in CG did not know the family income.

¹ Chi-square test for homogeneity; ² Fisher’s exact test.

The comparison test of the means of BSES-SF scores was not significant between the two study groups (p=0.408) at baseline, before the educational intervention. At that time, women were in the last gestational trimester. After the educational intervention, a statistically significant difference was found in the means of the BSES-SF scores between women in the IG and CG (p<0.001) at 2nd, 4th and 8th weeks postpartum. Maternal self-efficacy scores for breastfeeding remained high in the IG until the 8th week postpartum (Table 2).

Table 2 – Comparison of the means of BSES-SF scores between groups and between moments of the evaluation – Recife, PE, Brazil, 2014.

MOMENTS	Groups				p-value ¹
	Intervention		Control		
	Meana	SD	Mean	SD	
Before intervention	50.4	9.1	52.1 ^a	8.7	0.408
2 nd week postpartum	65.1 ^d	4.6	59.6 ^b	13.0	< 0.001
4 th week postpartum	66.1 ^d	4.9	57.7 ^{b,c}	9.9	< 0.001
8 th week postpartum	65.8 ^d	5.5	51.2 ^{a,c}	17.2	< 0.001

¹p-value of the Mann-Whitney test for comparison of means. ^{a,b,c,d}No significant difference between means.

There was a decreasing trend of EBF in both groups, with lower reduction in the IG. In the CG, there was a 35.2% reduction between the 2nd and 4th week postpartum, of 35.6% between the 4th and 8th week, and the decline throughout the study was 58.2%. In the IG, the reduction was 10.9% between the 2nd and 4th week, and of 10.2% between the 4th and 8th week. The total reduction of EBF in the IG during the follow-up was of 20% (Figure 2).

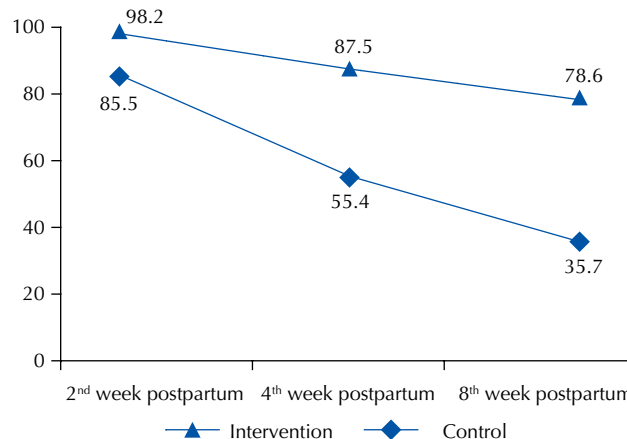


Figure 2 – EBF behavior between groups at 2nd, 4th and 8th weeks postpartum – Recife, PE, Brazil, 2014.

The effect of the educational intervention in relation to the occurrence of EBF was positive in women of the IG. The results indicate a statistically significant difference (p<0.001) in rates of EBF comparing IG and GC. The probability that women of the IG were exclusively breastfeeding at the 8th week postpartum was about twice as high as that of the CG (Table 3).

Table 3 – Effect of the intervention on the incidence of EBF among study groups at the 8th week – Recife, PE, Brazil, 2014.

GROUPS	EBF				RR (CI 95%)	p-value
	Yes		No			
	n	%	n	%		
Intervention	44	(78.6)	12	(21.4)	2.20 (1.51-3.21)	<0.001
Control	20	(35.7)	36	(64.3)	1.00	

DISCUSSION

The educational intervention with the flipchart 'I can breastfeed my son' was developed based on the concept of self-efficacy to breastfeed⁽¹⁵⁾, and led to higher self-efficacy scores from the 2nd to the 8th week postpartum. Furthermore, women in the IG were twice as likely to maintain EBF within 2 months of the infant's life. This result demonstrates the association of higher self-efficacy scores for breastfeeding and longer duration of EBF⁽⁴⁾.

Technologies based on the Cognitive Social Theory, especially in the constructs of self-efficacy for breastfeeding^(7,16), can support educational actions because they contemplate the individual motivation and sources of construction of maternal beliefs for breastfeeding.

The educational intervention tested in this study with women in the pregnancy-puerperal cycle served as an effective pedagogical tool, and allowed pregnant women in the IG to be protagonists of the learning process in the practice of breastfeeding. The success of this intervention is supported by the use of educational tools (in this case, the flipchart) based on the theory of self-efficacy for breastfeeding⁽⁷⁾, and application of the BSES-SF to measure self-efficacy because this is a modifiable factor strongly associated with EBF⁽¹⁷⁻¹⁸⁾. Women's self-efficacy scores before the intervention guided the individualized educational action.

In the educational intervention, were addressed the four sources of belief for building self-efficacy based on women's beliefs regarding their breastfeeding abilities evaluated by the BSES-SF^(7,16). Identifying the individual perception of beliefs in self-efficacy guided the dialogue and approach to educational action in order to consider each woman's needs. Thus, the abilities of pregnant women in the IG were qualified based on perceived self-efficacy. The educational intervention enabled the construction or consolidation of positive self-efficacy beliefs regarding their trust in breastfeeding.

The baseline analysis demonstrated a homogeneous sample in relation to most socioeconomic variables considered as factors interfering with the practice of breastfeeding, which could act as confounders in the study outcomes (except for maternal age). However, studies indicate that maternal age has not always posed as a risk factor for early weaning^(9,18).

Previous experience in breastfeeding is one of the sources of development of beliefs in maternal self-efficacy in breastfeeding⁽⁷⁾ and an important factor for the practice of EBF^(4,8). This experiment was similar in both groups and supported the results of the intervention. The baseline homogeneity was also found by comparing the mean scores of BSES-SF between groups. This observation is important because high self-efficacy scores for breastfeeding are associated with a higher chance of women initiating and maintaining exclusive breastfeeding^(6,8-9). Hence the conclusion that BSES-SF scores in pregnant women of the IG and CG at the beginning of the study did not interfere in the results. Therefore, positive outcomes with respect to maternal self-efficacy for breastfeeding and EBF in the first 2 months of the child's life observed in the IG can be attributed to the educational intervention.

The analysis of BSES-SF mean scores before the intervention and throughout the study at 2nd, 4th and 8th weeks postpartum demonstrated that the educational intervention promoted an increase in self-efficacy scores, and maintained these levels high until the 8th week in women of the IG. Similar data were reported in an experimental study performed with women in the last trimester of pregnancy in Iran, in which was examined the effect of an educational intervention on breastfeeding self-efficacy. BSES scores before and after the experiment showed higher self-efficacy scores for breastfeeding at the 4th week postpartum in women who received the intervention⁽¹⁹⁾.

Self-efficacy for breastfeeding is a modifiable variable through nursing interventions developed from concepts of Cognitive Social Theory^(7,9). Such a recommendation was observed in the development of the flipchart called 'I can breastfeed my son' that was validated with puerperal women and tested with pregnant women in this study⁽¹⁵⁾.

The theoretical basis used⁽⁷⁾ supports the four sources of beliefs embedded in building women's confidence in breastfeeding: direct or prior breastfeeding experience, vicarious experiences, verbal persuasion, and physical and emotional reactions. The educational technology used in this study (flipchart) was built from this theoretical framework, and enabled the rescue of sources of development and/or consolidation of the confidence in breastfeeding together with pregnant women.

The results show that the educational intervention in this study enabled the correction or minimization of negative beliefs and consolidation of positive beliefs in maternal self-efficacy for breastfeeding in the IG. Health professionals should replace sources of negative information and value positive ones for a greater maternal confidence⁽⁷⁾. Possibly, women in the IG with negative experiences have been able to reconstruct their beliefs in breastfeeding. The mean scores of self-efficacy for breastfeeding was higher and statistically significant for the IG ($p < 0.001$) from the 2nd week postpartum, and this difference remained until the 8th week postpartum.

The relationship between EBF and high scores of maternal self-efficacy for breastfeeding is well documented in studies that analyzed this variable^(8,10). The study investigating the role of psychosocial factors in EBF up to children's 6 months of life demonstrated that self-efficacy for breastfeeding is a strong predictor for both the intent and duration of breastfeeding⁽⁴⁾.

Such a relationship was found in this study. The decline in exclusive breastfeeding at 2nd, 4th and 8th weeks postpartum was greater among women in the CG, whose self-efficacy scores were also lower compared to women in the IG. The results reaffirm the relationship between low self-efficacy scores for breastfeeding and the risk for early weaning. This association has been reported since the first studies⁽⁶⁾ and confirmed by other researchers^(4,8-10).

Educational actions should equip women to improve their confidence in overcoming the initial difficulties of the lactation process. In this study, the flipchart titled 'I can breastfeed my son' (validated in puerperal women)⁽¹⁵⁾ has proven effective

in the approach to breastfeeding in the last gestational trimester. Systematic reviews on effects of educational interventions for promoting breastfeeding have concluded that such interventions were significant for maintaining EBF between the 4th and 6th weeks postpartum when made in prenatal care. The most effective educational actions were those capable of improving breastfeeding self-efficacy⁽⁹⁻¹⁰⁾.

The use of the flipchart 'I can breastfeed my son'⁽¹⁵⁾ that was developed in the light of the construct of self-efficacy for breastfeeding⁽⁷⁾ has increased maternal self-efficacy scores for breastfeeding and the incidence of EBF in the first 2 months of life of children of women in the IG. The heterogeneity between intervention and control groups in relation to maternal age may have constituted a limitation in the interpretation of results when considering that the CG had

a greater percentage of adolescent women and hence, with less personal experience in breastfeeding.

CONCLUSION

This study provided evidence that using an educational technology based on the concept of breastfeeding self-efficacy can raise self-efficacy scores for breastfeeding, and the increase of such scores has a positive impact on the incidence of EBF in the short term. Maternal self-efficacy for breastfeeding may be modified or consolidated through the educational intervention with the flipchart 'I can breastfeed my child', since BSES-SF scores have increased in women who received the intervention. Furthermore, the greater self-efficacy for breastfeeding throughout the follow-up of the study had a positive effect on EBF of children up to 2 months of life.

RESUMO

Objetivo: Avaliar os efeitos do uso de um álbum seriado sobre a autoeficácia materna na amamentação e suas repercussões no aleitamento materno exclusivo (AME) nos primeiros 2 meses de vida da criança. **Método:** Ensaio clínico realizado em Recife, Região Nordeste do Brasil, com 112 mulheres no terceiro trimestre de gestação, distribuídas de forma aleatória em grupo-intervenção (GI) e grupo-controle (GC). A intervenção caracterizou-se pelo uso do álbum seriado no GI. A coleta de dados foi realizada por meio de entrevistas no pré-natal e contato telefônico na segunda, quarta e oitava semanas pós-parto. Foi utilizada a BSES-SF para mensurar os escores de autoeficácia. Na análise, utilizou-se de estatística descritiva, bivariada por meio de testes de comparação de proporções e médias e avaliação do risco relativo. **Resultados:** Houve diferença estatisticamente significativa nas médias dos escores de autoeficácia entre as mulheres do GI e GC ($p < 0,001$) e nas taxas de AME ($p < 0,001$), a probabilidade de amamentar exclusivamente no GI foi duas vezes maior do que no GC (RR 2,2 IC 1,51-3,21). **Conclusão:** O uso do álbum seriado como ferramenta educacional repercutiu positivamente nos escores de autoeficácia para amamentar e na manutenção do AME no GI. Registro Brasileiro de Ensaios Clínicos: RBR-5N7K99

DESCRIPTORIOS

Aleitamento Materno; Autoeficácia; Tecnologia Educacional; Educação em Saúde; Enfermagem Materno-Infantil.

RESUMEN

Objetivo: Evaluar los efectos del uso de un álbum seriado acerca de la autoeficacia materna en la lactancia y sus repercusiones en la lactancia materna exclusiva (LME) en los primeros dos meses de vida del niño. **Método:** Ensayo clínico realizado en Recife, Región Nordeste de Brasil, con 112 mujeres en el tercer trimestre de gestación, distribuidas de modo aleatorio en grupo-intervención (GI) y grupo-control (GC). La intervención se caracterizó por el uso del álbum seriado en el GI. La recolección de datos se llevó a cabo mediante entrevistas en el prenatal y contacto telefónico en la segunda, cuarta y octava semanas post parto. Se utilizó la BSES-SF para mensurar los scores de autoeficacia. En el análisis, se utilizó estadística descriptiva, bivariada por medio de pruebas de comparación de proporciones y promedios y evaluación del riesgo relativo. **Resultados:** Hubo diferencia estadísticamente significativa en los promedios de los scores de autoeficacia entre las mujeres del GI y GC ($p < 0,001$) y en las tasas de LME ($p < 0,001$), la probabilidad de amamentar exclusivamente en el GI fue dos veces mayor que en el GC (RR 2,2 IC 1,51-3,21). **Conclusión:** El empleo del álbum seriado como herramienta educativa repercutió positivamente en los scores de autoeficacia para amamentar y en el mantenimiento del LME en el GI. Registro Brasileiro de Ensayos Clínicos: RBR-5N7K99

DESCRIPTORIOS

Lactancia Materna; Autoeficacia; Tecnología Educacional; Educación en Salud; Enfermería Materno-infantil.

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