



Breastfeeding self-efficacy and interrelated factors

Autoeficácia em amamentação e fatores interligados

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Objective: to verify maternal self-efficacy related to breastfeeding among postpartum women. **Methods:** analytical and cross-sectional research with 385 puerperal women. The Short Form of the Breastfeeding Self-Efficacy Scale and a questionnaire with obstetric and socioeconomic variables were used. The data were analyzed by the student t-test in the Minitab Windows program version 17. **Results:** the factors with statistical significance were planned pregnancy ($p=0.003$), guidelines received during prenatal care ($p=0.003$), vaginal delivery ($p=0.021$), suckling in the first hour of life ($p=0.003$), income greater than a minimum wage ($p=0.029$) and non-use of illicit drugs ($p=0.023$). **Conclusion:** the participants had a high score for self-efficacy in breastfeeding related to planned pregnancy, guidelines received during prenatal care, vaginal delivery, first suction before the first hour of life, not offering to the child other milks prior to the letdown, mother's knowledge about the minimum time of exclusive breastfeeding and the non-use of illicit drugs.

Descriptors: Self Efficacy; Breast Feeding; Weaning; Rooming-in Care; Risk Factors.

Objetivo: verificar a apresentação da autoeficácia materna relacionada à amamentação entre puérperas. **Métodos:** pesquisa analítica e transversal com 385 puérperas. Utilizou-se a *Escala de Autoeficácia na Amamentação - Forma Abreviada* e questionário autoral com variáveis obstétricas e socioeconômicas. Os dados foram analisados pelo teste *t de student* no programa *Minitab* versão *Windows* 17. **Resultados:** os fatores com significação estatística foram: gestação planejada ($p=0,003$), orientações recebidas no pré-natal ($p=0,003$), parto vaginal ($p=0,021$), sucção na primeira hora de vida ($p=0,003$), renda maior que um salário mínimo ($p=0,029$) e não uso de drogas ilícitas ($p=0,023$). **Conclusão:** as participantes apresentaram escore alto para autoeficácia em amamentar relacionado a planejamento da gravidez, orientações recebidas durante o pré-natal, via de parto vaginal, tempo para a primeira sucção antes da primeira hora de vida, não oferecer à criança outros leites antes da apojadura, conhecimento da mãe sobre tempo mínimo de aleitamento materno exclusivo e o não uso de drogas ilícitas.

Descritores: Autoeficácia; Aleitamento Materno; Desmame; Alojamento Conjunto; Fatores de Risco.

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Introduction

In the last decades there has been an increase in the global prevalence of breastfeeding; however, there are few regions in the world in which half of children under six months are exclusively breastfed⁽¹⁾. According to the Pan American Health Organization, although almost all newborns are breastfed, the percentage of children under six months on exclusive breastfeeding ranges from 7.7% to 60.4% and the median duration of breastfeeding is 6.3 to 21.7 months. Countries that have made greater progress are showing signs of stagnation while there has been lacking progress or even regression in other countries⁽²⁾.

The worst rates are in developing countries, in which the introduction of other foods occurs early⁽³⁾. In Brazil, a study showed that only 57.3% of the children are breastfed for 24 months and only 42.9% received exclusive breast milk until the sixth month of life⁽⁴⁾.

In this context, it is observed that breastfeeding periods recommended by the World Health Organization are still a challenge and it is necessary to rethink and improve breastfeeding promotion, protection and support practices and to associate them with the available theoretical and scientific basis, considering the singularity of each person, the established institutional policies and the qualification of practitioners, thus creating strategies that can fill gaps that interfere in the achievement of established goals⁽⁵⁾.

One of the strategies for greater adherence to the practice of breastfeeding is to provide the mother with the knowledge and attitudes necessary for the development of her breastfeeding self-efficacy⁽⁶⁾. When the person feels self-efficacious, they acquire motivation, which helps in the modification of the behavior towards the therapeutic aspect, taking into account the perception of the individual and their relations with the environment. Thus, if the woman perceives herself to be self-efficacious in the practice of breastfeeding, her behavior will certainly be in favor of such practice⁽⁷⁾.

Self-efficacy contributes to the interaction between mother and child, maternal safety in baby care, and increases the possibility of breastfeeding for longer period. Therefore, it is necessary to consider the existence of mothers who, although wishing to breastfeed exclusively, do not feel self-efficacious in doing so and choose to supplement or replace breastfeeding with other foods before the child reaches six months of age⁽⁸⁾.

In this sense, professional support may favor the development of maternal self-efficacy in breastfeeding through actions at all moments of the puerperal-pregnancy cycle, since successful breastfeeding depends on a self-efficacious attitude. In addition, it is necessary to carry out research that contemplates self-efficacy, encompassing the woman and the family, assuming that this concept should support the incentive to breastfeeding⁽⁹⁾. Thus, this study aims to verify maternal self-efficacy related to breastfeeding among postpartum women.

Methods

This is an analytical research with a cross-sectional design developed at a maternity hospital accredited to the Child-Friendly Hospital program and located in a School Hospital in the state of Minas Gerais, Brazil. The study was conducted from January to July 2016.

In order to determinate the sample size, the formula $(n=Z^2.pq.N/E^2(N-1)+ Z^2.p.q)$ was used. The confidence level used was 95%, the sample error was 5% and the prevalence with which the phenomenon occurs in the population was 50.0%, in order to reach the largest possible sample. It was based on the mean number (2400) of births occurred in the hospital in the two years (2013 and 2014) prior to this study, with 15.0% being added to the sample aiming to minimize the losses, totaling 385 puerperal women who were chosen for convenience at the time of data collection.

Participants were selected considering the inclusion criteria: women in the postpartum period (1st to 10th day); six hours after delivery; being aged 12 years or older; and being hospitalized in the rooming-in during the collection period, accompanied by their newborn, who should be healthy and with effective sucking capacity. The exclusion criteria were women who presented clinical events at the time of data collection or in the puerperal period; maternal/neonatal condition that contraindicates breastfeeding; puerperal women with some difficulty of comprehension and verbal expression; and postpartum women with cognitive and mental impairment.

The data were collected by the researchers, directly with the puerperal women, during hospitalization. The instrument used for information on self-efficacy was the Short Form of the Breastfeeding Self-Efficacy Scale, composed of 14 items, validated and adapted to the Brazilian culture. This scale favors the detection of mothers who are prone to success in breastfeeding, as well as those who may present need for interventions before discharge. It addresses categories of mastery of the breastfeeding technique and intrapersonal thoughts, and each item is evaluated according to a Likert-type agreement scale with the following score: 1. I totally disagree, 2. I disagree, 3. I partially agree, 4. I agree and 5. I totally agree. In this way, the total score can range from 14 to 70 points. The identification of self-efficacy occurred through the sum of points obtained in each item, considering low (14 to 32 points); medium (33 to 51 points); and high efficacy (52 to 70 points)⁽¹⁰⁾.

For the collection of complementary data regarding the obstetric, sociodemographic, economic and knowledge profile of the pregnant woman, the questionnaire was developed by the researchers with the following variables: age, marital status, having paid activity, income, smoking, alcohol consumption, use of alcohol, use of other drugs, planned pregnancy, number of prenatal visits, guidelines received during

the prenatal and puerperal periods, parity, delivery route, time until first contact with the newborn, time until first suction, use of milk supplementation before the letdown and pregnant woman's knowledge about the exclusive breastfeeding period. For this purpose, a pre-test was performed with 40 puerperal women randomly chosen to evaluate the time spent and the degree of understanding of the questions, aiming to improve the consistency of the questions and to adjust the instrument to the proposed objectives. The puerperal women who participated in the pre-test were not included in the statistical calculation of the study, thus totaling 425 participants.

The data was organized in the Microsoft Excel/Windows program (Office 2007) and exported to the Minitab program Windows 17 version for performing descriptive and associative analysis. The variables were presented in absolute numbers and percentages. The Self-efficacy score variable was tested for the normal distribution, finding $p < 0.005$, which led to the definition of the student t-test to verify the alternative hypotheses. The significance level was established for p -value < 0.05 .

The study complied with the formal requirements contained in the national and international regulatory standards for research involving human beings.

Results

Among participants, 77.4% were 21 years of age or older; 70.1% were married/in stable union and 67.7% lived with the husband; 57.9% were not employed; and 49.3% had a gross family income of up to one minimum wage. Regarding schooling, 2.4% did not know how to read or write; 23.9% had attended elementary school; 63.1% high school and 10.6% higher education. Regarding life habits, 14.8% reported alcohol consumption and 6.2% said they were smokers, as shown in Table 1.

Table 1 – Distribution of puerperal women according to sociodemographic variables, life habits, score related to the feeling of self-efficacy in breastfeeding

Variable	n (%)	p
Age (years)		
≥ 21	298 (77.4)	0.240
≤ 20	87 (22.6)	
Marital status		
Single	115 (29.9)	0.000
Married/Stable union	270 (70.1)	
Performing paid activity		
No	223 (57.9)	0.090
Yes	162 (42.1)	
Income (minimum wage)		
≤788	190 (49.3)	0.029*
≥788	195 (50.7)	
Smoking		
Yes	24 (6.2)	0.444
No	361 (93.8)	
Alcohol consumption		
Yes	57 (14.8)	0.424
No	358 (85.2)	
Other drugs		
Yes	13 (3.3)	0.023*
No	372 (96.7)	

*p with statistical significance

It was evidenced the predominance of agreement of the puerperal women in relation to the affirmatives of the Short Form of the Breastfeeding Self-Efficacy Scale, since 68.0% (262) presented high efficacy in breastfeeding, 28.9% (111) medium efficacy and 3.1 % (12) low efficacy. Associative analysis found a statistically significant relationship between the higher self-efficacy score and the factors: being married/ in stable union; income greater than a minimum wage and non-use of illicit drugs; planned pregnancy; having received guidance on breastfeeding during prena-

tal care; vaginal delivery; less than one hour until the first suction; no use of milk supplementation prior to letdown; and the knowledge about the period recommended by the World Health Organization for exclusive breastfeeding, according to Tables 2 and 3.

Table 2 – Distribution of puerperal women according to prenatal obstetric variables and association with the self-efficacy score in breastfeeding

Variable	Self-efficacy (%)			Total	p
	Low	Medium	High		
Planned pregnancy					
Yes	1.0	11.6	26.4	39.2	0.003*
No	2.1	17.1	41.6	60.8	
Number of prenatal visits					
0 to 5	0.5	5.5	10.4	16.4	0.155
≥ to 6	2.6	23.3	57.7	83.6	
Guidance on breastfeeding during prenatal care					
Yes	2.1	16.6	49.1	67.8	0.003*
No	1.0	12.2	19.0	32.2	
Parity					
Primiparous	1.8	12.2	27.3	41.3	
Multiparous	1.3	16.6	40.8	58.7	0.069

*p with statistical significance

For mothers whose newborns had received milk supplementation during the hospitalization period, it was evidenced that 61.2% did not know the type of supplementation offered; 34.1% said to be milk formula; and 4.7% said it was breast milk in the cup. Regarding the knowledge about the time of exclusive breastfeeding, 62.9% reported that it should be performed during six months and 37.1% did not know, according to Table 3. It is also stressed that more than 30.0% of the puerperal women reported not having received guidance on breastfeeding during prenatal care.

Table 3 – Care routines linked to the practice of breastfeeding, referred to by the puerperal women researched

Variable	Self-efficacy (%)				p
	Low	Medium	High	Total	
Guidance on breastfeeding in the hospital					
Yes	2.3	21.9	55.6	79.8	0.198
No	0.8	7.0	12.4	20.2	
Delivery route					
Vaginal	1.3	15.0	39.7	56.0	0.021*
Cesarean section	1.9	13.8	28.3	44.0	
Time until first contact with the newborn after delivery (hours)					
≤ 1	2.1	21.5	52.7	76.3	0.121
> 1	1.1	7.3	15.3	23.7	
Time until first suction (hours)					
≤ 1	1.6	14.5	40.0	56.1	0.003*
> 1	1.6	14.3	28.0	43.9	
Use of milk supplementation before letdown					
Yes	2.1	22.3	14.6	39.0	0.041*
No	1.0	6.5	53.5	61.0	
Knowledge about exclusive breastfeeding period					
Up to 06 months	1.3	17.7	43.9	62.9	0.041*
I do not know	1.8	11.2	24.1	37.1	

*p with statistical significance

Discussion

The fact that the data had been collected only at the Child-Friendly Hospital, not allowing effective comparisons with other groups regarding breastfeeding time, was set up as a limitation of this study. In addition, since it was not a longitudinal study, it was not possible to know the impact of the self-efficacy score on the continuity of breastfeeding after hospital discharge.

Studies conducted to assess the accuracy of the Short Form of the Breastfeeding Self-Efficacy Scale scores and to determine a cutoff point as a predictor for early weaning have shown that this scale has moderate accuracy to differentiate women who will not breastfeed exclusively after discharge from hospital, as mothers who have a score less than or equal to 50

points on the scale have high chances of early weaning. Thereafter, they should receive interventions that support exclusive breastfeeding⁽¹¹⁾.

Higher self-efficacy scores were also observed, similarly to this study, in women who had planned pregnancy⁽¹²⁾. Regarding prenatal consultations, the Prenatal Care and Delivery Humanization Program recommends that at least six consultations be held, in which laboratory and clinical-obstetric tests as well as breastfeeding guidelines should be provided⁽¹³⁾. In the sample from this study, a higher efficacy score was found among those who had attended six or more visits.

Significant difference was found for those who knew the time recommended for exclusive breastfeeding and who had received guidance on breastfeeding during prenatal care. In this context, exclusive breastfeeding incentive programs could be used to welcome, accompany and guide the mothers, especially those who had not make family planning⁽¹⁴⁾, combining quantity and quality of information.

Although it seems obvious that the multiparous group had greater experience and, therefore, better adaptation to exclusive breastfeeding, it was not observed in the sample that the number of deliveries is related to higher self-efficacy score in breastfeeding. In addition, infants who were born in hospitals accredited as a Child-Friendly Hospital have been breastfed for longer than those born in other hospital institutions⁽¹⁵⁾. In this sense, the fact that the collection took place in an institution that holds the title of Child-Friendly Hospital may have influenced the outcome.

Mothers who had had a natural delivery and started breastfeeding in the first hour of the baby's life had a higher score in this study. A similar result was found in a study in which cesarean delivery was indicated as a factor that predisposes to low self-efficacy score in breastfeeding, since in the postpartum period the mother experiences pains and discomforts of the surgery that make it difficult to position the baby properly⁽¹⁵⁾. In addition, cesarean delivery is a risk factor for late lactogenesis. In this case, it is necessary to

emphasize that early stimulation and suckling of the breast by the newborn are important to increase milk production⁽¹⁶⁾.

Other researchers have also shown higher maternal self-efficacy scores among mothers who had breastfed the first hour of life and concluded that putting the newborn to breastfeed early should be a routine in maternity wards. They recognized the importance of the institution holding the title of Child-Friendly Hospital as a protective factor against delaying the initiation of breastfeeding. On the other hand, cesarean delivery and lack of knowledge about the results of the Human Immunodeficiency Virus test were identified as contributing factors for the late start of this practice.

Therefore, increasing the accreditation of institutions as Child-Friendly Hospitals, reducing cesarean rates, adhering to prenatal care protocols, following recommendations that encourage breastfeeding in the first hour after birth and enabling professionals to perform appropriate interventions are important actions to promote breastfeeding in the first hour of life⁽¹⁴⁾.

In contrast, this study demonstrated a high rate of use of milk supplementation, as opposed to the recommendations of the Child-Friendly Hospital Initiative, considering that the babies were healthy and presented effective sucking. Other negative aspects were the mothers' lack of knowledge about the recommended time for exclusive breastfeeding and the fact that almost one third of the puerperal women reported having received no guidance on breastfeeding during prenatal care. These findings expose the fragility of the care, the inconsistency of the health team and the lack of interaction or inadequacy of the counseling, serving as an alert for the restructuring in the quality of care⁽¹⁷⁾.

Regarding the social aspects of this study, the family income greater than a minimum wage showed a positive association with the perception of self-efficacy, whereas the use of drugs and illicit substances was associated with the low score. A similar result

was obtained in an exploratory study with a quantitative approach conducted with 21 mothers, which suggests that the success of breastfeeding also depends on social factors related to the living conditions. Therefore, it is necessary for professionals to consider self-efficacy in their sociocultural context, since it is necessary to establish interactions with the characteristics, knowledge, beliefs and behaviors of puerperal women⁽¹⁷⁾.

This study allowed elucidating which aspects or factors contribute or interfere with the process of maternal self-efficacy for breastfeeding and, therefore, should be supported and reinforced by the health team. However, it is important to consider that a high self-efficacy score identified soon after childbirth facilitates adherence to breastfeeding, but does not guarantee its continuity for the period recommended by the World Health Organization. It is, therefore, necessary to create a continuous support network, considering the specificities of women and their families. We suggest further studies investigating this relationship and its influence on the process of self-efficacy.

Conclusion

The participants had a high score for self-efficacy in breastfeeding related to planned pregnancy, having received guidelines during prenatal care, vaginal delivery, suckling before the first hour of life, not offering the child other milks before letdown, mother's knowledge about the minimum time of exclusive breastfeeding and the non-use of illicit drugs.

Collaborations

Silva MFFS, Pereira LB and Souza AAM contributed in conception and design. Ferreira TN contributed in the analysis and interpretation of the data. All the authors contributed in the writing of the article, critical review of the intellectual content and final approval of the version to be published.

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