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Factors related with breastfeeding self-efficacy immediate after birth in puerperal adolescents

Fatores relacionados à autoeficácia na amamentação no pós-parto imediato entre puérperas adolescentes

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Breast feeding; Self efficacy; Trust; Adolescent; Maternal and child health

Descritores
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Abstract

Objective: To determine the association between breastfeeding self-efficacy and sociodemographic and obstetric factors of adolescents.

Methods: This observational, cross-sectional and descriptive study was carried out at a public maternity in the municipality of Ribeirão Preto, São Paulo, Brazil. Data were collected from January to July 2014 using the Brazilian version of Breastfeeding Self-Efficacy Scale that evaluated the breastfeeding self-efficacy.

Results: Higher levels of self-efficacy were associated with the following variables: to be supported by mother or mother-in-law after delivery (p=0.0083), breastfeeding in the first hour of life (p=0.0244) and exclusively breastfeeding upon data collection (p=0.0148).

Conclusion: The support of mother and mother-in-law received by puerperal women, to breastfeed within the first our and exclusively breastfeed during the admission period in the nursing ward influenced levels of breastfeeding self-efficacy among adolescent puerperal.

Resumo

Objetivo: Verificar a associação entre a autoeficácia na amamentação e os fatores sociodemográficos e obstétricos das adolescentes.

Métodos: Estudo observacional, transversal e descritivo, desenvolvido no alojamento conjunto de uma maternidade pública no município de Ribeirão Preto, São Paulo. Os dados foram coletados no período de janeiro a julho de 2014, utilizando a versão brasileira da *Breastfeeding Self-Efficacy Scale* (BSES) que avaliou a autoeficácia na amamentação.

Resultados: Os níveis de autoeficácia mais elevados estavam associados às variáveis: ter apoio da mãe ou da sogra no pós-parto (p=0,0083), amamentar na primeira hora de vida (p=0,0244) e estar em aleitamento materno exclusivo no momento da coleta de dados (p=0,0148).

Conclusão: O apoio da mãe ou da sogra recebido pela puérpera, a amamentação na primeira hora de vida e a prática do aleitamento materno exclusivo durante o período de admissão no alojamento conjunto, influenciaram os níveis de autoeficácia na amamentação entre as puérperas adolescentes.influenciaram os níveis de autoeficácia na amamentação entre as puérperas adolescentes.

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Introduction

The World Health Organization (WHO) considers adequate feeding in childhood as the most efficient intervention to promote childhood health, and WHO recommends that children should be exclusively breastfed until the six month of life and complimentary up to 2 years of age or over. This recommendation is also followed by the Brazilian Ministry of Health.[1,2] Advantages of maternal breastfeeding are largely described in the literature and its benefits is extended to child's and woman health, as well as promotion of economic advantages for the family and society as a whole.[3]

Maternal breastfeeding indexes presented an significant improvement in the last decades in Brazil, contributing to reduce childhood mortality in the country.[4,5] However, the prevalence of exclusive breastfeeding remains below of what is recommend by the WHO.[1,2]

Early weaning is a complex phenomenon that is influenced by biological, psychological, social and cultural factors, and it characterized by introduction of other type of food in the diet of the child who is exclusively breastfed before the six month of age.[6]

Maternal age appears as one of the factors that can influence duration of breastfeeding. For adolescents, the association of age with personal factors increases the risk of early weaning compared with adult women.[7] In addition, cultural habits and social norms, as well as difficulties in the first day after delivery and support received from family, especially from their mothers, influence the behavior of adolescents concerning breastfeeding.[7,8]

Other factor that influences both beginning and maintenance of breastfeeding is maternal confidence in the ability of breastfeeding, which is constructed and maintained by personal support and situations experienced by the woman.[9-11] Maternal confidence is also called breastfeeding self-efficacy, which is a changeable and easy to access variable by health professionals. The analysis of this variable also enable to identify women at higher risk for early diagnosis, as well as to perform individualized interventions when necessary.[12,13]

Maternal self-efficacy in the ability of breastfeeding is explained by the theory of breastfeeding self-efficacy developed by Dennis[14] and from the self-efficacy construct that integrates the social-cognitive theory of Bandura.[14,15]

According to self-efficacy construct, individuals need to be convinced that they could perform successfully a specific task or behavior, and they should believe that he/she could achieve an expected health result. Individuals should believe that such behavior would help to achieve the expected result, as well as to feel capable to perform it.[15] Therefore, the breastfeeding self-efficacy is related to woman's perception about her ability to breastfeed her baby, and in the belief that she has knowledge and enough skills for successfully breastfeeding.[14]

To evaluate the level of breastfeeding self-efficacy, Dennis and Faux[16] developed and validated the Breastfeeding Self-efficacy Scale (BSES).The BSES is Likert-type scale with content created from problems related to practice and duration of breastfeeding presented in the literature, and it was adapted in a number of countries, including Brazil. This instrument is valid and trustable, and it can be used to support health professional to identify women with higher risk of early weaning.[11,17,18]

Studies performed with BSES proved that women with higher level of breastfeeding self-efficacy for longer time compared with those that present lower level of confidence, and some factors such as support received and hospital practices, might influence women' behavior in breastfeeding.[12,18] This study verified breastfeeding self-efficacy among puerperal adolescents and the existence of association between breastfeding self-efficacy and sociodemographice and obstetric factors. This study soughts to contribute for profesional pratice in the mother-child binomial, as well as to implement actions to benefit maternal breastfeeding.

Methods

This was an observational, cross-sectional and descriptive study, developed in a nurse ward from a

public maternity in the municipality of Ribeirão Preto, São Paulo, Brazil. The sample of the study was calculated based on information of the annual report of nurse ward in which the study was done and based on previous study involving maternal confidence for breastfeeding among Brazilian women. Considering a tolerable sample error of 5%, level of confidence was 95%, and previous loss was 10%. The sample was composed by 94 puerperal adolescent.

Puerperal women were randomly selected considering the following inclusion criteria: no more than 18 years of age, good physical conditions for breastfeeding, children with term gestational age (>37 weeks), at least 24 hours after delivery and newborn in the maternity. Exclusion criteria were: presence of any disease, intercurrences after the delivery that could avoid breastfeeding, newborn with any disease and/or requiring special care, child with hearing, visual or cognitive impairment.

Adolescents were invited to participate, and they received previous information about the study. After understand the study and its ethical aspects, those who agreed to participate signed the consent form. The signature in the consent form of the legal guardian was also requested for under-age puerperal women.

Data were collected from January to July 2014 using two instruments. The first instrument on identification data and sociodemographic and obstetrics characteristics of participants. The second instrument entailed the BSES – the Brazilian version, used to evaluate participants breastfeeding self-efficacy.

BSES is Likert type scale including 33 question a divided into two domains: technical and intrapersonal intelligence. Each question has five possibilities of answer with scores ranging from 1 to 5, i.e., 1 - I totally disagree, 2 - I disagree, 3 - sometimes I agree, 4 - I agree, 5 - I totally agree. Therefore, total score of scale ranged from 33 to 165 points.[17] Breastfeeding self-efficacy to identify through the scale is distributed according to obtained score from calculation of each question: low self-efficacy (33 to 118 points), medium self-efficacy (119 to 137 points), high self-efficacy (138 to 165 points).[19] This instrument was already tested in several phases of the puerperal-pregnancy cycle, and results presented support its use in any stage of the perinatal period.[20] Because it is self-applicable, this instrument was answered directly by the puerperal women, without interference of the researcher. Therefore, puerperal women answered if and on how intensity they agreed or disagreed to each issue.

Data were double-typed in electronic spreadsheets in Microsoft Excel. Double-typing enabled validation of typed data in order to eliminate any possible errors and guarantee confidence in data compilation. For data analysis, we used the Analysis System SAS® 9.0 statistical software and R version 3.0.

To characterize the sample, data analysis was crucial for descriptive statistics. The association between qualitative variables was verified using the Fisher Exact test. The level of significance was 5% ($\alpha = 0.05$).

This study was approved by Ethics and Research Committee of Nursing School of Ribeirão Preto at University of São Paulo, protocol nº21346013.80000.5393.

Results

We included 94 puerperal adolescent. Participants' mean age were 16.53 years (SD=1.44), and 50% declared to be "parda", 58.51% had completed primary education, 46.81% had a partners but they were not married, and 52.13% lived on their own house. Most of participants (87.23%) reported to be unemployed, and mean month family income was 2.23 Brazilian minimal wages. Participants obstetrics characteristics were: most of them were adolescents (93.2%) primipara and 65.96% did not planned the gestation. Of them 60.49% underwent standard prenatal care in the first trimester of gestation, and most of them (85.06%) attended six or more consultations. A total of 86.17% had normal full delivery, 57.4% breastfeed within the first hour of life and

92.55% were exclusively breastfeeding their baby when data were collected. All adolescents reported they were helped by someone to take care of the baby.

In terms of breastfeeding self-efficacy, 54.26% of puerperal adolescent presented high self-efficacy, according to data presented in table 1.

Table 1. Distribution of puerperal adolescents in terms of breastfeeding self-efficacy classification

Self-efficacy classification	Adolescents (n=94) n(%)
Low	11(11.70)
Moderate	32(34.04)
High	51(54.26)

The analysis of the association used the dependent variable "breastfeeding self-efficacy" and independent variables concerning sociodemographic, obstetrics and breastfeeding characteristics. Results showed a significant association between the variable "support with care of the baby" and "breastfeeding self-efficacy", i.e., adolescents who reported to receive help of their mothers and/or mothers-in-law had higher level of breastfeeding self-efficacy (p=0.0083). The table 2 presents results of association between breastfeeding self-efficacy and considered variables.

We also observed a significant association for variables "maternal breastfeeding within the first hour of life" and "type of maternal breastfeeding at time of collection". Adolescents who breastfeed in the first hour of life had higher level of breastfeeding self-efficacy (p=0,0244), as well as those who were exclusively breastfeeding at the time of data collection (p=0.0148), and this result was statistically significant, according to table 3.

According to results, no previous obstetric variables (number of gestations, delivery, abortion, and lived child) were statistically significant associated with breastfeeding self-efficacy, as well as current obstetric variables (planned gestation, gestational age in the beginning of pre-natal care and number of pre-natal consultations attended), intercurrences in gestation, at delivery and after delivery, and type of delivery.

Table 2. Analysis of breastfeeding self-efficacy, associated with sociodemographic, obstetrics and breastfeeding characteristics among adolescents

Variables	Self-efficacy			p-value*
	Low n(%)	Moderate n(%)	High n(%)	
Skin color reported				
White	02(2.13)	09(9.57)	15(15.96)	0.4529
Black/Parda	07(7.45)	22(23.40)	34(36.17)	
Asian	02(2.13)	01(1.06)	02(2.13)	
Formal education				
Incomplete primary education	04(4.26)	07(7.45)	10(10.64)	0.1900
Complete primary education	03(3.19)	21(22.34)	31(32.98)	
Complete high school	04(4.26)	04(4.26)	10(10.64)	
Left school because of the pregnancy				
Yes	06(6.38)	14(14.89)	16(17.02)	0.2743
No	05(5.32)	18(19.15)	35(37.23)	
Religion				
More than one religion	07(7.45)	23(24.47)	33(35.11)	0.7753
Believe in God, but do not have religion	04(4.26)	09(9.57)	18(19.15)	
No religion	00(0.00)	00(0.00)	00(0.00)	
Occupation				
Employed	00(0.00)	06(6.38)	06(6.38)	0.3357
Unemployed	11(11.70)	26(27.66)	45(47.87)	
Marital Status				
Single/divorced	03(3.19)	13(13.83)	21(22.34)	0.7215
Married/not married but lives with a partner	08(8.51)	19(20.21)	30(31.91)	
Type of house				
Own house	03(3.19)	15(15.96)	31(32.98)	0.1772
Rented	06(6.38)	13(13.83)	17(18.09)	
Bored	02(2.13)	04(4.26)	02(2.13)	
Other	00(0.00)	00(0.00)	01(1.06)	
Month family income in Brazilian minimal age (R$ 724,00) (n=65)				
No more than 2	04(6.15)	10(15.38)	22(33.85)	0.4278
2,1 to 4	02(3.08)	11(16.92)	10(15.38)	
More than 4	01(1.54)	01(1.54)	04(6.15)	
Help to take care of the baby				
Mother/mother-in-law	07(7.45)	14(14.89)	35(37.23)	0.0083
Husband/partner/ boyfriend	04(4.26)	10(10.64)	04(4.26)	
Other family member/ friend	00(0.00)	08(8.51)	12(12.77)	

*Fisher exact test; CI - 95% Confidence Interval

Table 3. Analysis of breastfeeding self-efficacy associated with variables "breastfeeding within the first hour of life of the newborn" and "type of maternal breastfeeding at the time of collection"

Variables	Self-efficacy			p-value*
	Low n(%)	Moderate n(%)	High n(%)	
Breastfeeding in the first hour of life of the newborn (n=93)				
Yes	09(9.68)	13(13.98)	32(34.41)	0.0244
No	02(2.15)	19(20.43)	18(19.35)	
Type of maternal breastfeeding at the time of collection				
Exclusively breastfeeding	11(11.70)	27(28.72)	49(52.13)	0.0148
Predominance of breastfeeding	00(0.00)	00(0.00)	02(2.13)	
Mixed breastfeeding	00(0.00)	05(5.32)	00(0.00)	

*Fisher exact test; CI - 95% Confidence Interval

Discussion

The result of the study with puerperal adolescent showed that most of participants (54.26%) had high level of breastfeeding self-efficacy. A study carried out in Canada using the reduced version of the BSES showed that between puerperal adolescent that begun the breastfeeding, 57% of them had high self-efficacy in pre-natal care.[21] We did not found studies analyzing levels of self-efficacy immediate after delivery among adolescents.

Adolescents who reported to be assisted to take care of their baby by their mother or mother-in-law had higher level of self-efficacy, therefore, this result corroborates with other studies that described family support after delivery as an important factor to begin and maintain breastfeeding.[22] The support after delivery is one of the environmental and emotional factors that influence the decision of the women for breastfeeding and it improves their self-esteem, confidence and promotes a healthy behaviors.[23] Mother of adolescent are the major influencers in their breastfeeding experience, in terms of decide to breastfeed or not, and its maintenance.[24] When mothers of adolescent are presented, they are important to supply adolescent need of emotional and information support regardless of social class.[22]

Results also present a significant association between self-efficacy in breastfeeding and the variables "Breastfeeding within the first hour of life of the newborn" and "Type of maternal breastfeeding at the time of collection". No studies were found in the literature that analyzed this association in puerperal adolescent. However, we understand that skin-to-skin contact and early beginning of breastfeeding bring a variety of benefits to mother and baby, and they are related with higher maternal satisfaction and increase of confidence of women and their ability to breastfeeding and delivery care of their baby.[25] In addition, the physical feeling experienced by women just after the delivery can increase or decrease the confidence, situations in which women experience higher anxiety, stress and pain, reduced the level of oxytocin and reflect the of maternal milk ejection, leading to perception of insufficient milk and, consequently, reduce of levels of self-efficacy.[26,27]

Results showed increase of self-efficacy among adolescents when they reported to be helped by others to take care of the baby compared with "breastfeeding within the first hour of life of the newborn" and "type of maternal breastfeeding at the time of collection". It also showed that these data can be important to support the continuity of breastfeeding, considering that scientific literature reports that adolescent mothers have higher risk of not begin breastfeeding, higher risk of early weaning, especially during the hospitalization, lower chance of exclusively breastfed at hospital discharge and higher risk of discontinuing breastfeeding after hospital discharge.[28]

Conclusion

We highlight that specific practices given to puerperal women, such as receiving support from mother or mother-in-law, breastfeeding within the first hour of baby's life and practice of exclusive breastfeeding during the period of admission to nurse ward influence the increase breastfeeding

self-efficacy among puerperal adolescent. The maternity in which this study was carried out is part of Brazilian program "The Friend of the Children Hospital", which is a factor considered a limitation of our study because institutions in this program makes strong efforts to promote breastfeeding, and this fact may reflect responses given by participants. Although the "The Friend of the Children Hospital" program constitutes a strategy that improves the maternal self-efficacy, we did not find studies associating actions or indicators of "Friend of Children" institutions and breastfeeding self-efficacy.

Few studies so far have analyzed breastfeeding self-efficacy immediate after birth. Considering that BSES can be developed in a manner that adolescents would be followed-up retrospectively and prospectively, with aim to improve knowledge and follow-up mother and child binomial in relation for breastfeeding practice. This study provides support for professional practice in terms of establish planning for maternal breastfeeding, and self-efficacy in breastfeeding is an important variable to be identified and worked along with adolescent at higher risk for early weaning.

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Collaborations

Guimarães CMS, Conde RG, Gomes-Sponholz FA, Oriá MOB and Monteiro JCS declare to participate in conception of the study, data analysis and interpretation, drafting the manuscript, critical review of the content and approval of final version to be published.

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