

Original Article

Effects of the Delivery Type on the Breastfeeding Self-Efficacy Perception

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Abstract

Background: Breastfeeding self-efficacy is defined as the mother's perception that her milk supply is adequate. The stronger the sense of self-efficacy is the greater the mother's effort, insistence and strength to breastfeed is.

Aim: In the present study, it was aimed to determine the perception of breastfeeding self-efficacy among women in the early postpartum period according to the delivery type.

Methods: This descriptive study was conducted between March 2018 and May 2018 in two hospitals located in the city center of Antalya, a province on the Mediterranean coast of Turkey. The population of the study consisted of 254 postpartum women who gave birth between the aforementioned dates in the aforementioned hospitals. The study data were collected with the "Personal Information Form" and "Breastfeeding Self-Efficacy Scale" (BSES). In the analysis, in addition to the descriptive statistics, nonparametric tests (Kolmogorov-Smirnov, $p < 0.05$) were used because numerical variables were not distributed normally.

Results: The mean age of the participating mothers was 27.92 ± 3.91 years, the mean number of pregnancies was 1.96 ± 1.00 , the mean number of childbirths was 1.83 ± 0.84 , the number of living children was 1.74 ± 0.79 and the mean baby birth weight was 3148.66 ± 274.28 gr.

Conclusions: In this descriptive study conducted to assess breastfeeding self-efficacy of women in the early postpartum period, it was determined that of the socio-demographic characteristics, educational status, employment status and economic status, and of the pregnancy characteristics, prenatal care status, time of first breastfeeding and the currently preferred feeding method affected the mothers' self-efficacy.

Key Words: breastfeeding, breastfeeding self-efficacy perception, delivery type, nursing, postpartum period.

Introduction

Healthy growth and development of children can only be achieved through an adequate and balanced diet. Breastfeeding meets the three essential elements of healthy nutrition needs: food, health and care. The fact that the modern technology discovers a new inimitable, mysterious feature of breastmilk every day indicates that it is the most suitable nutrient for the newborn. In terms of nutrition, there is nothing else to replace breastfeeding (Taskin, 2017).

The prevalence of cesarean section is increasing both in Turkey and in other countries of the world. To prevent complications occurring after cesarean section, the World Health Organization

(WHO) recommends that the cesarean rate should not exceed 15% (Homer, et al., 2013). Cesarean section rates reported to be on the increase in many countries range from 30% to 50% in Taiwan, the United States, Australia, the United Kingdom, New Zealand, China and Canada.

The main factor leading to this increase in the caesarean section rates is the increased rate of repeat cesarean sections (Homer, et al., 2013; Ouyang, & Zhang, 2013; Gardner, Henry, Thou, Davis, & Miller, 2014). During the last 20 years in Turkey, the cesarean section rate which was 6.9% in 1993 increased to 14.0% in 1998, to 21.2% in 2003, to 36.7% in 2008 and to 51.1% in 2014. According to 2016 data, this rate was 53%

(Ministry of Health Health Statistics Yearbook, 2016). Due to the rising cesarean section rate in Turkey, the Ministry of Health began to carry out follow-up studies on the indications of cesarean section, developed the "Childbirth and Cesarean Section Program" and prepared the "Management of Birth and Cesarean Section Guideline" in order to decrease the increasing rate of cesarean sections, to protect the maternal and child health and to inform the health workers who provide health service on this issue (Ministry of Health Birth and cesarean section management guide, 2010).

In several studies, socio-demographic and psychological variables affecting breastfeeding have been investigated, and the factor which has the strongest effect on the outcomes of breastfeeding was determined to be the mother's perception of breastfeeding self-efficacy (Tokat, 2009; Yenal, Tokat, Ozan, Cece, & Abalın, 2013; Wu, Hu, McCoy, & Efid, 2014).

Breastfeeding self-efficacy is defined as the mother's perception that her milk supply is adequate. The stronger the sense of self-efficacy is the greater the mother's effort, insistence and strength to breastfeed is. In their study (2002), Blyth et al. assessed the effect of mothers' self-efficacy perception on the duration of breastfeeding and found that the duration of breastfeeding was higher among mothers whose self-efficacy perception was high (Blyth, Creedy, & Dennis, 2002). In the literature, the mother's age (Dennis, 2006), education and socioeconomic status (Tokat, 2009), type of delivery (Wutke, & Dennis, 2007), time of first breastfeeding, supplementary food intake (Gerhardsson, Hedberg, Mattsson, Volgsten, Hildingsson, & Lotta, 2014), previous breastfeeding experience, support by others regarding breastfeeding (Dennis, 2006), psychological status, perception that her breast milk is inadequate, having breast-related problems and adaptation to postnatal period have been determined to affect breastfeeding self-efficacy .

Increased levels of oxytocin in the natural process of labor cause contractions to begin.

As oxytocin levels increase so do endorphin levels. In late labor, the mother's body produces hormones to help her deal with pain, which stimulates her baby's adrenal glands to produce high levels of catecholamines (Tokat, 2009). Catecholamines stimulate the baby and give energy to the mother. The oxytocin hormone also

makes milk flow down the milk ducts. Because caesarean delivery does not begin by the release of oxytocin, the onset of lactation is delayed. Mothers who give birth through caesarean section can breastfeed their babies as do mothers who give birth through vaginal delivery. However, mothers who give birth through caesarean section may have more problems in breastfeeding and may need more support (Tokat, 2009). Women who have delivered their baby through cesarean section can breastfeed their babies only after 4 hours of birth. However, if the cesarean section is performed under epidural anesthesia, this period is shortened and varies from half an hour to 1 hour. Women who give birth through caesarean section need more help in breastfeeding than those who give birth vaginally. In addition, the delay of breastfeeding after cesarean delivery can cause the engorgement of the breasts. Breast engorgement may be a risk factor for mastitis and breast infection.

There can be significant differences between mothers who give birth through cesarean section and mothers who give birth vaginally in terms of seeing, cuddling and starting to breastfeed their babies. This may affect the initiation and maintenance of breastfeeding. In the present study, it was aimed to determine the perception of breastfeeding self-efficacy among women in the early postpartum period according to the delivery type.

Material and Method

Research type: This study was done as a descriptive.

Research place and time: This descriptive study was conducted between March 2018 and May 2018 in two hospitals located in the city center of Antalya, a province on the Mediterranean coast of Turkey. The population of the study consisted of 254 postpartum women who gave birth between the aforementioned dates in the aforementioned hospitals. In the study, no sampling method was implemented; all the 254 women in the study population were included in the sample. Having given birth, having no communication problems, volunteering to participate in the study, being in the postpartum period.

Data collection tools: The study data were collected (Tokat, 2009; Wutke, & Dennis, 2007; Gokceoglu, & Kucukoglu, 2017; Pakseresht, Pourshaban, & Khalesi, 2017), with the "Personal

Information Form" and "Breastfeeding Self-Efficacy Scale" (BSES).

Personal Information Form: The 22-item form questions the participants' socio-demographic characteristics (5 items), pregnancy and childbirth history-related characteristics (10 items), and breastfeeding-related characteristics (7 items). Socio-demographic characteristics questioned were age, education status, family type, social security status, employment status and monthly income status.

Obstetric (pregnancy and childbirth history-related) characteristics questioned were the number of pregnancies, the number of births, the number of living children, whether the pregnancy is an intended one, health problems experienced during pregnancy, having health checks during pregnancy, support provided by others during and after childbirth, delivery type, problems experienced during delivery, baby's gender and baby birth weight.

Breastfeeding-related characteristics questioned were the time of the first breastfeeding, having had knowledge/education about breastfeeding previously, who the information/ education is received from, whether the information / education received is adequate, the first food given orally, how much the baby is breastfed, the reason for giving supplementary food, problems affecting breastfeeding, lack of experience, whether the nipple is flat or inverted, presence of wounds or cracks on the nipple, presence of breast infection, the baby's being underweight, late onset of breastfeeding, absence of a proper place for breastfeeding outside home. Among the problems leading to ineffective breastfeeding are the lack of adequate knowledge about breastfeeding, the infant's inability to latch on, inadequate milk supply, aesthetic concerns, smoking, alcohol use, the baby's inadequate weight gain, the mother's health problems and the baby's health problems.

Breastfeeding Self-Efficacy Scale (BSES): The BSES short form developed by Dennis includes 14 items which assess breastfeeding self-efficacy (Dennis, 2003). The items on the scale are rated on a 5-point Likert scale ranging from 1 (not at all confident) to 5 (always confident). The lowest and highest possible scores to be obtained from the scale were 14 and 70 respectively. The higher the score is the higher the breastfeeding self-efficacy level is. Dennis (2003) recommended that the scale should be used in the postpartum

period (Dennis, 2003). Alus Tokat, Okumuş and Dennis (2010) conducted the reliability and validity study of the Turkish version of the Breastfeeding Self-Efficacy Scale Short Form and found its Cronbach's value as 0.86, and considered that the scale was appropriate for Turkish culture (Alus Tokat, Okumuş, & Dennis, 2010). In the present study, the Cronbach's alpha value was 0.95, and the mean score for the overall scale was 48.29 ± 13.04 .

Data Analysis and Evaluation: Statistical analyses were conducted using the IBM SPSS Statistics for Windows (IBM SPSS Statistics Base v23). In the analysis, in addition to the descriptive statistics, nonparametric tests (Kolomogorov-Smirnov, $p < 0.05$) were used because numerical variables were not distributed normally. The type I error below 5% was considered statistically significant.

Research Ethics: To conduct the study, ethical approval was obtained from the Ethics Committee of Clinical Investigations of the Faculty of Medicine of Akdeniz University (Decision No: 70904504/82) and necessary permissions from the hospitals where the study was to be conducted. Verbal and written consent of the mothers who participated in the study was obtained after the purpose of study was explained to them.

Results

The mean age of the participating mothers was 27.92 ± 3.91 years, the mean number of pregnancies was 1.96 ± 1.00 , the mean number of childbirths was 1.83 ± 0.84 , the number of living children was 1.74 ± 0.79 and the mean baby birth weight was 3148.66 ± 274.28 gr. In Table 1, the comparison of the mean BSES scores according to socio-demographic and pregnancy characteristics of the mothers demonstrated that there were statistically significant differences between the mothers' scores in terms of socio-demographic characteristics such as education status, employment status and economic status, and pregnancy characteristic such as prenatal care status ($p < 0.05$) but that there were no significant differences in terms of the other variables ($p > 0.05$) (Table 1).

In Table 2, the comparison of the mean BSES scores according to breastfeeding characteristics of the mothers demonstrated that there were statistically significant differences between the mothers' scores in terms of the variables such as

the time of the first breastfeeding and the currently preferred feeding method ($p < 0.05$) but that there were no significant differences in terms of the other variables ($p > 0.05$)

In Table 3, the comparison of the mean BSES scores according to the breastfeeding characteristics of the mothers demonstrated that there were statistically significant differences between the mothers' scores in terms of the variables such as lack of adequate knowledge about breastfeeding, the infant's inability to latch on, lack of experience and inverted nipple ($p > 0.05$) (Table 3).

The relationship between the mean scores the participating mothers obtained from the BSES in terms of some of their socio-demographic and obstetric characteristics was evaluated with the correlation analysis. There was a moderate and positive statistically significant relationship between the mean BSES scores and the following variables: the mean number of pregnancies ($r_s = 0,591$), the mean number of births ($r_s = 0,576$) and the number of living children ($r_s = 0,570$) ($p < 0.05$) (Table 4).

Table 1. Comparison of the mean Breastfeeding Self-Efficacy Scale scores in terms of socio-demographic and pregnancy characteristics of postpartum women.

Characteristics	Number	(%)	BSES	Test and Significance
Education Status				
Illiterate	3	1.2	63.00±8.66	KW=24.031 p=.000
Primary school	124	49.0	51.79±13.26	
High school	95	37.5	43.69±12.09	
University	31	12.3	47.19±10.40	
Employment status				
Employed	90	35.4	44.36±11.93	U=5348.50 p=.001
Unemployed	164	64.6	50.72±13.10	
Family type				
Nuclear	202	79.5	47.73±13.03	U=4525.50 p=.180
Large	52	20.5	50.72±12.97	
Economic status				
Good	27	10.6	49.22±10.76	KW=6.307 p=.043
Moderate	206	81.1	47.53±13.46	
Bad	21	8.3	54.52±9.89	
Is the pregnancy intended?				
Yes	199	78.3	47.85±13.13	U=5074.00 p=.408
No	55	21.7	49.87±12.71	
Health problems experienced during pregnancy				
Yes	22	8.7	52.36±9.29	U=1990.50 p=.088
No	232	91.3	47.90±13.29	
Having health checks				
Yes	164	64.6	47.16±12.12	U=6217.50 p=.038
No	90	35.4	50.35±14.42	
Delivery type				
Vaginal	183	72.0	47.93±13.30	U=6124.50 p=.479
Cesarean section	71	28.0	49.21±12.39	
Baby's gender				
Girl	127	50.0	47.69±13.00	U=7567.00 p=.395
Boy	127	50.0	48.89±13.11	

Table 2. Comparison of the participating mothers' postpartum Breastfeeding Self-Efficacy Scale scores in terms of their breastfeeding characteristics.

Characteristics	Number	(%)	BSES	Test and Significance
Time of the first breastfeeding				
Immediately after delivery	96	37.9	47.14±12.74	KW=10.577 P=.005
Within the first hour after delivery	100	39.5	51.37±13.29	
One hour after delivery	57	22.5	45.00±12.20	
Receiving information about breastfeeding				
Yes	232	91.3	48.16±13.18	U=2415.00 p=.677
No	22	8.7	49.68±11.62	
The first food given to the baby				
Colostrum	253	99.6	48.32±13.06	U=0.306 p=.580
Formula	1	0.4	40.00±0.00	
The currently preferred feeding method				
Exclusive breastfeeding	188	74.3	49.51±13.43	U=4810.00 p=.011
Breast milk and formula	65	25.7	44.89±11.31	
The reason for giving food other than breast milk				
Inadequate milk supply	50	80.6	44.40±10.62	KW=2.570 p=.577
Baby's reluctance to suckle	11	17.7	48.62±11.64	
Others	1	1.6	63.00±0.00	

Table 3. Comparison of the participating mothers' postpartum Breastfeeding Self-Efficacy Scale scores in terms of the factors leading to their inability to breastfeed.

Characteristics	Number	(%)	BSES	Test and Significance
Lack of adequate knowledge about breastfeeding				
Yes	59	37.3	41.23±11.17	U=1148.00 p=.000
No	99	62.7	55.44±12.07	
The infant's inability to latch on				
Yes	90	49.2	41.34±11.13	U=1376.00 p=.000
No	93	50.8	56.54±10.69	
Perception of inadequate milk supply				
Yes	151	66.8	43.84±11.53	U=2115.00 p=.000
No	75	33.2	57.89±10.84	
Lack of experience				
Yes	100	53.5	42.51±12.18	U=1818.00

No	87	46.5	56.05±11.21	p=.000
Inverted nipple				
Yes	41	28.9	45.09±8.84	U=1134.50
No	101	71.1	54.52±12.73	p=.000
Presence of wounds or cracks on the nipple				
Yes	17	14.3	53.82±11.60	U=848.00
No	102	85.7	53.55±12.39	p=.885
Presence of breast infection				
Yes	8	6.8	57.00±11.17	U=375.50
No	110	93.2	53.72±12.49	p=.489
Mother's health problem				
Yes	4	3.4	48.50±8.34	U=147.00
No	113	96.6	54.35±12.37	p=.235
Baby's health problem				
Yes	6	5.1	48.66±6.31	U=203.50
No	111	94.9	54.43±12.46	p=.108

Table 4. The relationship between the mean scores the participating mothers obtained from the Breastfeeding Self-Efficacy Scale and their socio-demographic and obstetric characteristics.

Socio-demographic characteristic	BSES	
	r_s^*	p
Age	0.121	.055
Obstetric characteristics		
The number of pregnancies	0.591	.000
The number of childbirths	0.576	.000
The number of living children	0.570	.000
Baby birth weight	0.061	.333

* r_s : Spearman correlation coefficient

Discussion

In the present study, education status, employment status, economic status and prenatal care status were determined to statistically affect the participating mothers' perception of breastfeeding self-efficacy. In Gokceoglu and Kucukoglu's study (2017), higher education level and higher income status were determined to improve the participants' perception of breastfeeding self-efficacy (Gökçeoğlu, & Kucukoglu, 2017). Pakseresht et al., (2017) conducted a study to compare breastfeeding self-efficacy at postpartum week 1 and 6, and found a significant relationship between the participants' employment status and their mean BSES scores (Pakseresht et al., 2017).

In several studies, some sociodemographic characteristics of mothers (employment status, education level, income level and delivery type)

have been stated to affect their self-efficacy (Gokceoglu, & Kucukoglu, 2017; Pakseresht et al., 2017; Margotti & Epifanio, 2014). Most of the studies found that attitudes of women who had higher education towards breastfeeding were more positive (Araujo, et al., 2013; Hahn-Holbrook, et al., 2013). However, in one study, some sociodemographic characteristics of mothers (education level, employment status and income status) were determined not to affect mothers' breastfeeding self-efficacy levels (Kucukoglu, Celebioglu, & Coskun, 2014). In the present study, the mothers' education status, employment status, economic status and receiving pre-natal care affected their BSES scores adversely, which was probably due to the fact that approximately half of the mothers had primary education, more than half of them were unemployed, and the majority of them had a moderate income level. Therefore, it can be

assumed that education and income are important factors in accessing information and the health system.

In the present study, the type of delivery had no effect on the mothers' mean BSES scores. In Kucukoglu et al.'s study (2014), no statistically significant difference was determined between cesarean delivery and vaginal delivery in terms of breastfeeding self-efficacy, which is consistent with the findings of the present study (Kucukoglu, et al., 2014). On the other hand, contrary to the findings of the present study, in some other studies, the type of delivery affected breastfeeding self-efficacy. Dennis (2003) and Tokat (2009) found that the mothers who delivered their babies through cesarean section had lower BSES scores, which was due to the lack of maternal-infant interaction in the early postpartum period (Tokat, 2009; Dennis, 2003). Caesarean section is an operation necessary to prevent certain situations from occurring likely to put mother-baby health in danger. Given the mother-infant health, caesarean section is not superior to natural birth. In fact, it may pose many risks to the newborn such as respiratory problems, post-cesarean hypovolemia, and hypotension. In addition, cesarean section may lead to problems in the establishment of mother-infant attachment, delay in the first breastfeeding, decrease in breastfeeding duration, and pathological weight losses in newborn more frequently. In the present study, although the relationship between the type of delivery and the breastfeeding self-efficacy was not significant, the score obtained by the mothers who gave birth vaginally was lower. There arise some difficulties in starting breastfeeding after cesarean section and the time elapsed between the delivery and the first breastfeeding is long. Therefore, it is important to start breastfeeding within the first half hour both for mothers who haven given birth through cesarean section and for mothers who have given birth vaginally.

In the present study, statistically significant differences were determined between the mean scores obtained by the mothers in terms of the time of the first breastfeeding and currently preferred feeding style. The review of studies conducted in Turkey with similar results demonstrated that 88.0% of the mothers in Bostancı and Inal's (2015) study and 70.8% of the mothers in Yesilcicek Calik et al.'s study (2017) breastfed their babies within the first hour after birth (Bostancı, & Sevil, 2015; Yesilcicek

Calik, Coşar Cetin, & Erkaya, 2017). In the literature, it has been reported that there is a close relationship between delivery type and breastfeeding behaviors. In their meta-analysis study (2012), Prior et al. determined that of the mothers, those who gave birth through cesarean section began to breastfeed later than did those who gave birth vaginally (Prior, Santhakumaran, Gale, Philipps, Modi, & Hyde, 2012). In their study conducted to investigate the relationship between the delivery type and breastfeeding among new mothers in Nicaragua (2017), Kiani et al. found that 68.8% of the mothers started to breastfeed within the first hour after birth and 12.67% of them continued breastfeeding for 6 months (Kiani, Rich, Herkert, Safon, & Pérez-Escamilla, 2017). No significant relationship was determined between the delivery type and the initiation of breastfeeding among the mothers who participated in the study in Nicaragua (Kiani, et al., 2017). In a study conducted in Nepal, the type of delivery vaginal delivery 45.7% and caesarean section 25.8% affected the time of the first breastfeeding (Khanal, Scott, Lee, Karkee, & Binns, 2015). In another study, no correlation was determined between the type of delivery and breastfeeding behaviors (Rabiepoor, Hamidiazar, & Sadeghi, 2017). In the present study, the majority of the participating mothers (72%) gave birth vaginally, which resulted in the fact that the women whose first breastfeeding time was early constituted the majority of the participants.

In the present study, more than one third of the babies were breastfed within one hour after delivery. Early initiation of breastfeeding is reported to be associated with mothers' education level (Acharya, & Khanal, 2015). At the end of the present study, it was considered that breastfeeding babies with colostrum for the first time would be an important starting point for breastfeeding. Failure to breastfeed the baby within the first half hour after delivery may result in delayed milk production, and thus failure in the establishment of mother-infant attachment and the mother's perception that her milk supply is inadequate.

In the present study, a statistically significant relationship was found between the mean scores obtained by the participating women and the following variables: lack of adequate knowledge about breastfeeding, infant's inability to latch on, lack of experience and inverted nipple. Humaj-Grysztar et al. conducted a study (2017) to

investigate the lactation process in the early postpartum period in 100 primiparous women who gave birth through cesarean section and 100 primiparous women who gave birth vaginally, and determined that milk production was inadequate in 58% of the women in the former group and in 35% of the women in the latter group, and that 27% of the women in the latter group had cracks on the nipples; therefore, these mothers had to feed the infants with formula besides breast milk. In the same study, 15% of the mothers who delivered vaginally and only 4% of the mothers who gave birth through cesarean section had no lactation problems (Humaj-Grysztar, Bobek, Matuszyk, & Put, 2017). In another study, 41% of the participating women believed that their milk supply was inadequate (Jozefow, Przechodzka, & Knihinicka-Mercik, 2013). In Bączek et al.'s study (2012), in the postpartum period, 41% of the participating women thought that their milk supply was inadequate and 58% of them started to give formula besides breast milk (Bączek, Golubińska, & Dmoch-Gajzlerska, 2012). In their study (2016), Kılıcı and Coban investigated the relationship between breastfeeding self-efficacy perception and breast problems experienced in the early and late postpartum periods, and determined that breastfeeding success in the early postpartum period reduced breast problems and increased breastfeeding self-efficacy in the late postpartum period (Kılıcı, & Coban, 2016).

In the literature, it is emphasized that education programs are the most important factor affecting breastfeeding alone, and breastfeeding training and support provided by health professionals will increase the duration and rate of breastfeeding (Gokceoglu, & Kucukoglu, 2017; Sudfeld, Fawzi, & Lahariya, 2012). In their study (2017), Gokceoglu and Kucukoglu reported that breastfeeding training affected breastfeeding self-efficacy and perception in those who had such training and intended to breastfeed. In the same study, it was also determined that as mothers' breastfeeding self-efficacy levels increased so did their perception that their milk supply was adequate (Gokceoglu, & Kucukoglu, 2017). In Dennis's (2002) study, it was determined that mothers' low levels of breastfeeding self-efficacy perception were associated with their perception that their milk supply was inadequate (Dennis, Hodnett, Gallop, & Chalmers, 2002). In their study (2003) conducted in China, Dai et al. found that the mothers who perceived their milk supply

was inadequate obtained lower mean scores from the BSES and that because these mother's milk supply decreased they started giving their babies supplementary food earlier (Dai, & Dennis, 2003). In their study (2008), Chezem et al. found that mothers' knowledge about breastfeeding, previous experiences and feeling of confidence, and the planning of breastfeeding in advance affected the mothers' breastfeeding success positively (Chezem, Friesen, & Boettcher, 2003). Otsuka et al. (2008) found that mothers' perception that their milk supply was adequate increased their breastfeeding self-efficacy levels (Otsuka, Dennis, Tatsuoka, & Jimba, 2008). In case breast milk is inadequate; it is recommended to investigate common causes such as delayed onset of breastfeeding, infrequent breastfeeding, not breastfeeding at nights, short breastfeeding duration, wrong positioning of the baby to the breast, use of feeding bottles and pacifiers, early initiation of supplementary foods, mother's low self-esteem, anxiety, stress and fatigue. The mother's perception that her milk supply is inadequate may be due to her lack of confidence in breastfeeding skills and in coping with difficulties that arise during breastfeeding. Nurses are advised to plan necessary trainings on breastfeeding from the beginning to the end of the birth process using their role as counselors and trainers.

In the present study, a moderately positive statistically significant relationship was determined between the mean BSES scores and the variables such as the number of pregnancies, the number of births and the number of living children. Several studies have shown that breastfeeding self-efficacy levels of primiparous women are significantly different from those of multiparous women (Pakseresht, et al., 2017; Margotti, & Epifanio, 2014). The BSES scores of the multiparous mothers were significantly higher than those of the primiparous mothers (Tokat, 2009; Dennis, 2003; Kucukoglu, & Celebioglu, 2014). According to Dennis (2002), mothers' previous experiences affect their breastfeeding self-efficacy (Dennis, et al., 2002). In another study, the mean breastfeeding self-efficacy scores of women with four and more pregnancies were found to be higher (Gercek, Sarıkaya Karabudak, Ardic Celik, & Saruhan, 2017). Gokceoglu and Kucukoglu's study (2017), it was stated that multiparous women's breastfeeding self-efficacy levels were higher (Gokceoglu, & Kucukoglu, 2017). In the literature, a lot many

studies have been conducted on women's breastfeeding self-efficacy (Pakseresht, et al., 2017; Margotti, & Epifanio, 2014). In these studies, it was found that breastfeeding duration was long in women with high BSES scores. It can be considered that multiparous mothers' having previous breastfeeding experience may have affected their breastfeeding process positively. Mothers' previous pregnancies, the high number of births they gave and the high number of living children they had may also be thought to positively affect their breastfeeding self-efficacy.

Conclusion and Recommendations: In this descriptive study conducted to assess breastfeeding self-efficacy of women in the early postpartum period, it was determined that of the socio-demographic characteristics, educational status, employment status and economic status, and of the pregnancy characteristics, prenatal care status, time of first breastfeeding and the currently preferred feeding method affected the mothers' self-efficacy.

It is important for nurses to prepare training programs that will strengthen mothers' breastfeeding self-efficacy perception from the prenatal period on and to ensure fathers' participation in these programs. Effective counseling for breastfeeding should be provided for both parents before discharge in the postpartum period. Nurses can benefit from professional measurement tools such as the BSES in providing breastfeeding counseling for mothers and the importance of mothers' breastfeeding self-efficacy perception can be emphasized in in-service trainings given to health professionals. It may be recommended to perform interventional studies which assess breastfeeding self-efficacy.

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References

- Acharya, P., & Khanal, V. (2015) The effect of mother's educational status on early initiation of breastfeeding: further analysis of three consecutive Nepal Demographic and Health Surveys. *BMC Public Health*. 19, 1-12.
- Alus Tokat, M., Okumus, H., & Dennis, C. L. (2010) Translation and psychometric assessment of the breast-feeding self efficacy scale short form among pregnant and postnatal women in Turkey. *Midwifery*. 26, 101-108.
- Araujo, N. L., Lima, L. H.O., Oliveira, E. A. R., Carvalho, E. S., Duailibe, F. T., & Formiga, L. M. F. (2013) Infant feeding and factors related to breastfeeding. *Rev Rene*. 14,1064-1072.
- Bączek, G., Golubińska, H., & Dmoch-Gajzlerska, E. (2012) Selected problems of delivery period – the role of the family midwife's. *Medical Review*. 2, 200-212.
- Blyth, R., Creedy, D., & Dennis, C. L. (2002) Effect of materna lconfidence on breastfeeding duration: an application of breastfeeding self-efficacy theory. *Birth*. 29, 278-284.
- Bostanci, G., Sevil, İ. (2015) The evaluation of knowledge and practice about breastfeeding of mothers who delivering at a private baby friendly hospital. *Journal of Health Sciences and Professions*. 2, 260-270. (in Turkish)
- Chezem, J., Friesen, C., & Boettcher, J. (2003) Breastfeeding knowledge, breastfeeding confidence, and infant feeding plans: effects on actual feeding practices. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*. 32, 40-47.
- Dai, X., & Dennis, C. L. (2003) Translation and validation of the breastfeeding self-efficacy scale into Chinese. *Journal of Midwifery and Womens Health*. 48, 350-356.
- Dennis, C. L. (2003) The breastfeeding self-efficacy scale: psychometric assesment of the short form. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*. 32, 734-744.
- Dennis, C. L. (2006) Identifying predictors of breastfeeding self-efficacy in the immediate postpartum period. *Research in Nursing & Health*. 29, 256- 268.
- Dennis, C. L., Hodnett, E., Gallop, R., & Chalmers, B. (2002) The effect of peer support on breast-feeding duration among primiparous women: a randomized controlled trial. *Canadian Medical Association Journal*. 8, 164-169.
- Gardner, K., Henry, A., Thou, S., Davis, G., & Miller, T. (2014) Improving VBAC rates: the combined impact of two management strategies. *Australian and New Zealand Journal of Obstetrics and Gynaecology*. 54, 327-332.
- Gercek, E., Sarıkaya Karabudak, S., Ardic Celik, N., & Saruhan, A. (2017) The relationship between breastfeeding self-efficacy and LATCH scores and affecting factors. *Journal of Clinical Nursing*. 26, 994-1004.
- Gerhardsson, E., Hedberg, K. N., Mattsson, E., Volgsten, H., Hildingsson, I., & Lotta, E. (2014) The Swedish version of the breastfeeding self-efficacy scale-short form: reliability and validity assessment. *Journal of Hum Lact*. 30, 340-345.
- Gokceoglu, E., & Kucukoglu, S. (2017) The relationship between insufficient milk perception and breastfeeding self-efficacy among Turkish mothers. *Global Health Promotion*. 24, 53-61.

- Hahn-Holbrook, J., Haselton, M. G., Dunkel Schetter, C., & Glynn, L. M. (2013) Does breastfeeding offer protection against maternal depressive symptomatology?: a prospective study from pregnancy to 2 years after birth. *Archives of Women's Mental Health*. 16, 411-422.
- Homer, C. S., Besley, K., Bell, J., Davis D., Adams J., Porteous A., & Foureur, M. (2013) Does continuity of care impact decision making in the next birth after a caesarean section (VBAC)? a randomised controlled trial. *BMC Pregnancy and Childbirth*. 13: 1-6.
- Humaj-Gryzstar, M., Bobek, M., Matuszyk, D., & Put, M. (2017) The lactation process in primiparas in early postpartum period depending on the mode of delivery. The mode of delivery and the lactation process. *DE GRUYTER*. 16, 34-41.
- Józefów, P., Przestrzelska, M., & Knihinicka-Mercik, Z. (2013) The Course of lactation in the early puerperium after natural birth and by caesarean section including parity of woman. *Pielęgniarstwo i Zdrowie Publiczne Nursing and Public Health*. 3, 133-142.
- Khanal, V., Scott, J. A., Lee, A. H., Karkee, R., & Binns, C. W. (2015) Factors associated with early initiation of breastfeeding in Western Nepal. *International Journal of Environmental Research and Public Health*. 12, 9562-9574.
- Kılçı, H., & Coban, A. (2016) The correlation between breastfeeding success in the early postpartum period and the perception of self-efficacy in breastfeeding and breast problems in the late postpartum. *Breastfeeding Medicine*. 11, 188-195.
- Kiani, S. N., Rich, K. M., Herkert, D., Safon, C., & Pérez-Escamilla, R. (2017) Delivery mode and breastfeeding outcomes among new mothers in Nicaragua. *Maternal & Child Nutrition*. 14, e12474. 1-10.
- Kucukoglu, S., & Celebioglu, A. (2014) The examination of level of breastfeeding self-efficacy and breastfeeding success of mothers patient infants. *Erciyes University Journal of Faculty of Health Science*. 2: 1-11. (in Turkish)
- Kucukoglu, S., Celebioglu, A., & Coskun, D. (2014) Determination of the postpartum depression symptoms and breastfeeding self-efficacy of the mothers who have their babies hospitalized in newborn clinic. *Gumushane University Journal of Health Science*. 3, 921-932. (in Turkish)
- Margotti, E., & Epifanio, M. (2014) Exclusive maternal breastfeeding and the breastfeeding self-efficacy scale. *Rev Rene*. 15, 771-779.
- Ministry of Health Birth and cesarean section management guide (2010) (in Turkish)
- Ministry of Health Health Statistics Yearbook, (2016). General Directorate of Health Research. (in Turkish)
- Otsuka, K., Dennis, C. D., Tatsuoka, H., & Jimba, M. (2008) The relationship between reast feeding self-efficacy and perceived insufficient milk among japanese mothers. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*. 3, 546-555.
- Ouyang, Y. Q., & Zhang, Q. (2013) A study on personal mode of delivery among Chinese obstetrician-gynecologists, midwives and nurses. *Archives of Gynecology and Obstetrics*. 287, 37-41.
- Pakseresht, S., Pourshaban, F., & Khalesi, Z. B. (2017) Comparing maternal breastfeeding self-efficacy during first week and sixth week postpartum. *Electronic Physician*. 25, 3751-3755.
- Prior, E., Santhakumaran, S., Gale, C., Philipps, L. H., Modi, N., & Hyde, M. J. (2012) Breastfeeding after cesarean delivery: a systematic review and meta-analysis of world literature. *The American Journal of Clinical Nutrition*. 95, 1113-1135.
- Rabiepoor, S., Hamidiazar, P., & Sadeghi, E. (2017) The Relationship between type of delivery and successful breastfeeding. *International Journal of Pediatrics*. 5, 4899-4907.
- Sudfeld, C. R., Fawzi, V. W., & Lahariya, C. P. (2012) Support and exclusive breast feeding duration in low and middle-income countries: a systematic review and meta-analysis. *PLoS ONE*. 7, 1-9.
- Taskın, L. (2017) *Birth and Women's Health Nursing*. Akademisyen Bookstore, Ankara, Turkey.
- Wu, D. S., Hu, J., McCoy, T. P., & Efirid, J. T. (2014) The effects of a breastfeeding self-efficacy intervention on short-term breastfeeding outcomes among primiparous mother in Wuhan, China. *Journal of Advanced Nursing*. 1867-1879.
- Wutke, K., & Dennis, C. L. (2007) The reliability and validity of the Polish version of the breastfeeding self-efficacy scale-short form: translation and psychometric assessment. *International Journal of Nursing Studies*. 44, 1439-1446.
- Yenal, K., Tokat., M. A., Ozan, Y. D., Cece, Ö., & Abalın, F. B. (2013) The relation between breastfeeding self-efficacy and breastfeeding success in mothers, *Journal of Education and Research in Nursing*. 10, 14-19. (in Turkish)
- Yesilcicek Calik, K., Coşar Cetin, F., & Erkaya, R. (2017) Breastfeeding practices of mothers and influencing practices. *Gumushane University Journal of Health Science*. 6, 80-91. (in Turkish)