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Examination of the Relationship Between Breastfeeding Self-Efficacy and Perceived Breastfeeding Sufficiency of Mothers

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Abstract

BACKGROUND/AIMS: This study aimed to investigate the relationship between breastfeeding self-efficacy and perceived breastfeeding sufficiency of mothers with healthy infants aged 0-6 months who applied to the pediatric outpatient clinic of a public hospital and a university hospital in the Turkish Republic of North Cyprus.

MATERIAL and METHODS: This was a descriptive and correlational study. The universe of this study consisted of mothers who had 0-6 months old infants who applied to the pediatric outpatient clinic of a public hospital and the gynecology service of a university hospital. The data of this study were collected by using a questionnaire form containing the mothers' descriptive information, the Breastfeeding Self-efficacy Scale and the Perceived Insufficient Milk Questionnaire.

RESULTS: When the mothers' mean scores on the Breastfeeding Self-Efficacy Scale and the Perceived Insufficient Milk Questionnaire were evaluated, it was found that the mean score on the Breastfeeding Self-Efficacy Scale was X:60.16 ± standard deviation (SD) =9.00 and the mean score on the Perceived Insufficient Milk Questionnaire was X:42.06 ± SD =8.26. A statistically significant positive correlation was found between the scores on these two scales (r=0.66, p=0.00). Those mothers who were 25 years old or younger and those mothers who were 36 years old or older were found to have 19 higher perceptions of breastfeeding self-efficacy than the mothers in the other age groups ($p<0.05$).

CONCLUSION: In this study, the mothers' status of giving complementary foods affected their perceived milk insufficiency. This study found that breastfeeding self-efficacy increased when the perception of milk adequacy increased.

Keywords: Breast milk, breastfeeding, self-efficacy, perceived milk insufficiency

INTRODUCTION

It has been identified that the infant mortality rate decreases by 13% and, annually, 1.4 million deaths in children under the age of five are prevented as a result of feeding babies only with breast milk.[1] The World Health Organization, the United Nations Children's Fund and the American Academy of Pediatrics recommend that babies only consume breast milk in their first six months after birth, and they only start to consume liquid and solid complementary foods, respectively, from the sixth month of their life. It is recommended that babies continue to be fed with breast milk in addition to these complementary foods until at least two years of age.[2,3] In this context, breastfeeding in the first six months after birth includes feeding only with breast milk without any complementary food, including water, except for vitamins, minerals and drugs.[4,5]

It is stated that mothers who started breastfeeding early in the postpartum period breastfeed their babies for a longer period. According to data from the Turkey Demographic and Health Survey

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2018, 71% of babies began to suck in the postpartum first hour. It has been shown that 98% of all infants are fed with breast milk for a while.[6] Although breastfeeding is a widespread practice in the first hour after birth due to the support of health personnel, mothers do not continue breastfeeding at home after discharge.[7] In one study, it was found that the ratio of feeding with breast milk alone was 37.9% in one-month old babies and 26.5% in those infants aged 6 months.[8] In a systematic review, it was reported that 16% of breastfeeding problems reported by mothers were due to milk insufficiency/thinking that the baby was not satiated, and/or insufficient weight gain of the baby.[9]

One of the most important factors affecting breastfeeding is the maternal perception of breastfeeding self-efficacy. According to Bandura, self-efficacy is the perceived difficulty in behavior in order to perform a task.[10] The presence of a sense of self-efficacy in a person indicates sufficient motivation to fulfill his/her wishes. The perception of breastfeeding self-efficacy is the adequacy about breastfeeding felt by the mother. Maternal self-efficacy related to breastfeeding may be due to previous breastfeeding difficulties.[11]

According to Dennis and Faux[12], maternal perceptions of breastfeeding self-efficacy show whether mothers breastfeed or not, how much effort they will make for breastfeeding, their thoughts about breastfeeding and their ability to cope with the difficulties in the breastfeeding process. Therefore, maternal willingness to breastfeed is an important factor in increasing the success of breastfeeding. It has been thought that breastfeeding success and breastfeeding self-efficacy perception have a positive correlation.[13]

The most common concern that mothers experience during the breastfeeding period is the idea that their breast milk is not enough. The thought of having an inadequate amount of breast milk leads to mothers giving complementary foods and it also negatively affects both the breast milk production of the mothers and the milk intake of their babies. Problems such as beginning to use complementary products early or terminating breastfeeding can be prevented by informing mothers about the symptoms which show concretely whether their babies are getting enough breast milk or not.[14] In one study, it was determined that the frequent crying of babies caused anxiety in mothers about the adequacy of the milk intake of their babies and this affected the beginning of complementary product usage in addition to breast milk.[15] In that study, Dennis[16] found that the low maternal perception of breastfeeding self-efficacy was associated with the perception of inadequacy of breast milk. The maternal thoughts regarding insufficiency of breast milk is due to the mother's lack of self-confidence in her breastfeeding skills and coping with difficulties which may arise during breastfeeding. In one study examining the relationship between breastfeeding self-efficacy perceptions and perceived milk inadequacy, it was found that the perception of milk adequacy increased as maternal self-efficacy perception increased.[17]

There have been four studies on breastfeeding in the Turkish Republic of North Cyprus (TRNC) to date. Duran[18] found that mothers did not receive sufficient information about the importance of breastfeeding and breast milk, and the ratios of feeding babies with only breast milk and also breastfeeding within the first 30 minutes of the postpartum period were low. Özlüses[19], determined that the rate of feeding babies with breast milk in working mothers during the first 6 months of the postnatal period was 22.4%. Örsdemir[20] found that maternal knowledge levels and behaviors related to breastfeeding in a public hospital were not at the desired level. Sökücü Yorgancı and Aslan[21] determined that the positive employment status of mothers decreased the frequency and duration of breastfeeding and increased the rate of feeding with complementary foods.

Nurses play an important role in initiating and maintaining successful breastfeeding. Although there have been studies about breastfeeding self-efficacy and the perception of insufficient milk in the world and Turkey, no study on the relationship between the perception of insufficiency of breast milk and breastfeeding self-efficacy level in the TRNC was found. Therefore, this study was carried out to investigate the relationship between the breastfeeding self-efficacy and the perception of breast milk sufficiency of those mothers who had healthy babies aged 0-6 months. This study was carried out at the children's polyclinics of a university hospital and a state hospital in the TRNC.

Research Questions

1) What is the breastfeeding self-efficacy of those mothers who are breastfeeding with infants aged 0-6 months?

2) What is the perception of breastfeeding mothers with babies aged 0-6 months about the adequacy of their breast milk?

3) What is the relationship between the mean scores on the Breastfeeding Self-efficacy Scale and the Perceived Insufficiency of Milk Questionnaire for mothers with babies aged 0-6 months?

4) What are the factors associated with the socio-demographic characteristics, delivery, and breastfeeding history which affect the mean scores on the Breastfeeding Self-efficacy Scale and the Perceived Insufficiency of Milk Questionnaire?

MATERIAL AND METHODS

Type of the Study

This was a descriptive and correlational study.

Universe and Sample of the Study

The universe of this study consisted of mothers with babies aged 0-6 months who applied to a public hospital's polyclinic between April, 24th and September, 29th, 2017, and to the gynecology and obstetrics department and pediatric polyclinic of a university hospital between April, 24th, 2018 and August, 3rd, 2018. Using non-probability sampling, 95 women from the public hospital and 21 women from the university hospital who met the sampling criteria and volunteered to participate in this study constituted the sample.

Data Collection

The data were collected using face-to-face interviews with the mothers and data resources (documents/publications). The data of this study were collected by a questionnaire containing introductory information, the Breastfeeding Self-Efficacy Scale and the Perceived Insufficient Milk Questionnaire. The questionnaire containing introductory information consists of 15 questions. The postpartum Breastfeeding Self-Efficacy Scale consists of 14 statements, and the Perceived Insufficient Milk Questionnaire consists of 6 statements.

Breastfeeding Self-Efficacy Scale: This is a 33-item scale developed by Dennis[11] in 1999. The scale was first applied on 130 English-speaking

Canadian women and the Cronbach's alpha value of the scale was found to be 0.96. The Short Form of the Breastfeeding Self-Efficacy Scale (BSES-SF) was developed in 2003 by reducing the number of items to 14 items in 2003. The total correlation of the short form of the scale was found to be below 0.60 and the Cronbach alpha value was found to be 0.94. Aluş Tokat[14] conducted the Turkish reliability and validity study of the Breastfeeding Self-Efficacy Scale-Short Form and found the Cronbach's alpha value to be 0.86. The Breastfeeding Self-Efficacy Scale-Short Form is a 5-point Likert Type scale. The items of the scale are answered from 1= "*not at all confident*" to 5= *"always confident"*. The minimum score on the scale is 14, and the maximum score is 70. It is thought that breastfeeding self-efficacy increases as the score increases.

The perceived insufficient milk questionnaire: It was developed in 2001 by McCarter-Spaulding to determine the perception of breast milk insufficiency. The Perceived Insufficient Milk Questionnaire consists of 6 questions. The first question of the scale is about whether the mother perceives her breast milk as sufficient or not. Mothers who answer the scale answer this question as *"yes"* or *"no"*. Other questions of the scale are intended to measure the perception of milk inadequacy. Mothers are asked to score these questions between 0-10. When the score obtained from the scale is "0", the breast milk level is perceived as completely insufficient; when the score is "10", the milk level is perceived as sufficient. The lowest score on the scale is 0 and the highest score is 50. Higher total scores on the scale indicate that there is a sufficiency perception of breast milk. The Cronbach's alpha value was determined to be 0.81 for the original version of the scale. The Turkish validity and reliability study of the scale was conducted by Küçükoğlu and Gökçeoğlu[29] in Turkey in 2014. The Cronbach's alpha value of the Turkish version of the Perceived Insufficient Milk Questionnaire was found to be 0.82.

Statistical Analysis

The Statistical Package for Social Sciences for Windows (SPSS) 22.0 statistical package program was used for data coding and statistical analysis. In the evaluation of the data, Pearson correlation analysis was used to determine the relationship between the two scales while percentages and means were used for data analysis. The Mann-Whitney U test, Kruskal-Wallis test and variance analysis were used to compare the characteristics of these two scales related to socio-demographic features, delivery and breastfeeding history.

Inclusion Criteria

For mothers;

- Being 18 years old or older,
- Having a baby aged 0-6 months,
- Being able to speak Turkish,
- Having no health problem preventing breastfeeding,
- Having no visual and/or hearing impairment,
- Being open to communication and cooperation,
- Volunteering to participate in this study.

For infants;

- Being born in the 37th week or in the following weeks of the pregnancy,
- Being born with a weight of 2,500-4,000 grams,
- Having no congenital abnormalities preventing breastfeeding (cleft lip and palate, etc.).

Ethical Statement

Informed consent was obtained from the mothers who participated in this study. In order to use the scales, the necessary permission was obtained from those who conducted the validity and reliability studies. In order to use the data collection forms, the required written permission was obtained from the chief physicians of the university hospital and the state hospital where this study was conducted. Ethics committee approval was obtained from the Near East University Ethics Committee (approval number: 2018/56-541).

RESULTS

The socio-demographic characteristics of the mothers in this study are shown in Table 1. 37.9% of the mothers were aged 26-30 years and their mean age was 28.05 years (SD: ±5.3). It was determined that 37.9% of the mothers were primary school graduates or had a lower education level, 21.6% of them were university graduates or had a higher level of

Table 1. The distribution of the descriptive characteristics of the mothers (n=116)

Characteristics	Number (n)	Percentage (%)
Age		
≤25	34	29.3
26-30	44	37.9
31-35	28	24.2
≥36	10	8.6
Educational level		
Primary school or below	44	37.9
Middle school	20	17.2
High school	27	23.3
University or above	55	21.6
Perceived income level		
Income < expenses	26	22.4
Income = expenses	87	75.0
Income > expenses	3	2.6
Employment status		
Employed	84	72.4
Unemployed	32	27.6
The status of health insurance		
No	7	6.0
TR* social health insurance	22	19.0
TRNC health insurance	87	75.0
Profession		
Housewife	79	68.1
Self-employed	29	25.0
Civil servant	3	2.6
Academician	3	2.6
Health staff	2	1.7

*Turkish Republic.

education and only 27.6% of them were employed. It was determined that 68.1% of the mothers had no health insurance, 68.1% of them were housewives and 75% of them perceived their income as being equal to their expenses. When the characteristics of the mothers related to their delivery and breastfeeding history were evaluated, it was determined that 98.3% of them went for a prenatal checkup but only 9.5% of them were informed about breastfeeding (Table 2). It was determined that 52.6% of the mothers gave birth by cesarean section and 26.8% of them had three or more children. 96% of the mothers with more than one delivery were found to have breastfed their previous baby. The breastfeeding period of more than half of the mothers who had breastfed their previous baby was found to be 12.9 months (minimum: 0 months, maximum: 28 months).

The mean score of the mothers on the Breastfeeding Self-efficacy Scale was X: 60.16± SD: 9.00 and their mean score on the Perceived Insufficient Milk Questionnaire was X: 42.06± SD: 8.26 (Table 3).

The relationship between breastfeeding self-efficacy and perceived milk insufficiency levels is shown in Table 4. The relationship between the mothers' breastfeeding self-efficacy and their perceived milk insufficiency was evaluated by Pearson correlation analysis. A positive statistically significant correlation (r=0.661, p=0.00) was detected between these two scales.

Table 5 shows the comparison of the mothers' socio-demographic characteristics with their delivery and breastfeeding history. According to the comparison of the sociodemographic characteristics of the mothers and their scores on the breastfeeding self-efficacy scale, a statistically significant difference was found between the age, education level and the scores on the breastfeeding self-efficacy perception scale ($p<0.05$). The mean Breastfeeding self-efficacy scale scores of those mothers aged 25 or younger and those mothers aged 36 or older were higher than those of the mothers in the other age groups ($p<0.05$). The mothers' breastfeeding self-efficacy decreased as their education level increased ($p<0.05$). There was no statistically significant relationship between the mothers' mean score on the Breastfeeding Self-efficacy Scale and their perceived income level or employment status ($p>0.05$) (Table 5).

The distribution of the birth and breastfeeding histories related characteristics of the mothers according to their mean scores on the scales was analyzed. Statistically significant differences were found between the mothers' mean scores on the Breastfeeding Self-efficacy Scale according to their status of receiving prenatal care, their delivery mode and their status of being informed about breastfeeding ($p<0.05$). The mean breastfeeding self-efficacy score of those mothers who had received information about breastfeeding was 59.36±5.51 while that of the mothers who had received no information about breastfeeding was 60.24±9.31 ($p<0.05$). Statistically significant differences were found between the mothers' mean scores on the Breastfeeding Self-efficacy Scale according to their number of deliveries, their status of breastfeeding for their previous babies and their status of giving supplementary foods ($p<0.05$). It was found that breastfeeding self-efficacy increased as the number of deliveries increased ($p<0.05$). The mean breastfeeding self-efficacy score of the mothers who had breastfed their previous baby was 61.46±8.67, while it was 58.11±9.23 for those mothers who had not breastfed their previous baby ($p<0.05$). It was found that those mothers who fed their babies with supplementary foods had a lower mean breastfeeding self-efficacy score than those who did not fed their babies with these foods ($p<0.05$).

There was no statistically significant difference between the mothers' mean perceived milk insufficiency scores according to their status of receiving prenatal care, their type of delivery, their number of

Table 2. The distribution of the delivery and breastfeeding history related characteristics of the mothers (n=116)

Characteristics	Number (n)	Percentage (%)
The status of having received prenatal care		
Yes	114	98.3
No	2	1.7
The method of delivery		
Vaginal	55	47.4
Cesarean section	61	52.6
Number of deliveries		
1	42	36.2
2	43	37.0
≥3	31	26.8
The status of having received information about breastfeeding		
Yes	11	9.5
No	105	90.5
Information received (n=11)		
The importance of breastfeeding	7	63.6
The duration of breastfeeding	4	36.4
The status of having breastfed previous babies (n=74)		
Yes	71	96.0
No	3	4.0
The age of the youngest baby		
In the first month	42	36.2
In the second month	20	17.2
In the third month	14	12.1
In the fourth month	9	7.8
In the fifth month	13	11.2
In the sixth month	18	15.5
The status of giving formulas/complementary foods		
Yes	62	53.4
Noa	24	46.6

Table 3. The mean scores of the mothers on the BSES and PIMQ

	n	Mean ± standard deviation	X ± SD X_{min}-X_{max}
Mean BSES* score	116	60.16±9.00	21-70
Mean PIMQ** score	116	42.06±8.26	12-51

BSES*: Breastfeeding Self-Efficacy Scale. PIMQ**: Perceived Insufficient Milk Questionnaire. min: minimum, max: maximum.

Table 4. The correlation between the mothers' postpartum BSES and PIMQ scores

	PIMQ	
	r*	p*
BSES	0.661	0.001

r: Pearson correlation coefficient. BSES: Breastfeeding Self-efficacy Scale. PIMQ: Perceived Insufficient Milk Questionnaire. SD: standard deviation.

deliveries, their status of breastfeeding previous babies, or their status of receiving information about breastfeeding (p>0.05). The perceived milk insufficiency score of the mothers who gave complementary foods to their babies was 38.54±9.14, while it was 46.09±4.57 for those who did not. The perceived milk sufficiency of those mothers who did not give complementary foods was found to be high (p<0.05) (Table 5).

Table 5. The comparison of the mothers' sociodemographic characteristics, characteristics related to delivery and breastfeeding according to their score on the BSES and the PIMQ (n=116)

Characteristics	BSES	PIMQ	Significance test
	X ± SD	X ± SD	
Age			
≤25	63.23±5.72	44.02±7.16	KW*=8.23, **p=0.04** KW**=5.18, p=0.15
26-30	58.38±9.51	40.63±8.09	
31-35	58.57±10.4	41.03±9.94	
≥36	62.00±9.68	44.50±6.31	
Educational level			
Primary school or below	63.20±6.23	44.65±5.32	KW*=11.32, **p=0.01** KW**=7.34, p=0.06
Middle school	61.15±6.15	38.70±9.31	
High school	57.70±11.4	41.81±9.75	
University or above	56.68±10.5	40.44±5.72	
Perceived income level			
Income < expenses	58.11±11.3	41.50±7.61	KW*=2.19, p=0.33 KW**=0.78, p=0.67
Income = expenses	60.85±8.26	42.25±8.52	
Income > expenses	58.00±5.29	41.33±8.50	
Employment status			
Employed	61.10±8.49	40.75±9.64	z*=-1.93, p=0.05 z**=-0.96, p=0.33
Unemployed	57.68±9.96	42.55±7.67	
The status of having received prenatal care			
Yes	60.08±9.05	41.98±8.30	z*=-0.66, p=0.50 z**=-0.81, p=0.41
No	64.50±4.94	46.50±4.94	
The method of delivery			
Vaginal	61.98±7.12	43.07±7.46	z*=-1.80, p=0.07
Cesarean section	58.52±10.2	41.14±8.88	z**=-1.05, p=0.29
Number of deliveries			
1	58.00±9.37	40.57±8.40	KW*=8.83, **p=0.01** KW**=3.56, p=0.16
2	60.23±9.35	42.23±8.53	
≥3	63.00±7.31	43.83±7.52	
The status of having received information about breastfeeding			
No	59.36±5.51	42.18±7.33	z*=-1.17, p=0.24 z**=-0.30, p=0.76
Yes	60.24±9.31	42.04±8.38	
The status of having breastfed previous infants (n=74)			
Yes	61.46±8.67	43.02±7.96	z*=-2.52, **p=0.01**
No	58.11±9.23	40.53±8.57	z**=-1.87, p=0.06
The status of giving formulas/complementary foods			
Yes	59.36±5.51	38.54±9.14	z*=-5.15, **p=0.01**
No	60.24±9.31	46.09±4.57	z**=-5.13, **p=0.01**

*This is the analysis result which was compared with the BSES mean score. **This is the analysis result which was compared with the PIMQ mean score. KW: Kruskal-Wallis test, z: Mann-Whitney U test. BSES: Breastfeeding Self-efficacy Scale. PIMQ: Perceived Insufficient Milk Questionnaire. SD: standard deviation.

DISCUSSION

Prenatal education, which is thought to play an important role in the initiation and maintenance of breastfeeding, was not given to most of the mothers in this study. Although almost all of the mothers received prenatal care, only a few of them stated that they had received prenatal breastfeeding training (Table 2). Only 7 out of 11 women who received breastfeeding training received information about the importance of breastfeeding, and only 4 of them were informed about the correct duration of breastfeeding (Table 2). However, other studies found that prenatal breastfeeding training and motivation programs for breastfeeding increased the mothers' breastfeeding self-efficacy scores.[22,23] Therefore, it can be said that it is important to train and support mothers about breastfeeding during the prenatal period.

A significant proportion of the mothers fed their babies with formulas or supplementary foods in the first 6 months (Table 2). According to many studies on the causes of breastfeeding problems and the early transition to supplementary foods, the most important problem was that the mothers thought that their breast milk was insufficient.[24,25] Gatti[26] reviewed studies in which insufficient milk perception was measured and determined that the most common problem experienced in the early termination of breastfeeding was perceived milk insufficiency. In a study covering 423 mothers and their babies aged 0-6 months in northwestern Ethiopia, it was reported that additional nutrients were started in the early period, as 18% of mothers thought that their breast milk was insufficient and that it was not enough for their baby.[27]

A statistically significant relationship was found between the mean scores on the Breastfeeding Self-efficacy Scale and the mean scores on the Perceived Insufficient Milk Questionnaire (Table 4). It was found that mothers perceived their breast milk levels more adequately as their breastfeeding self-efficacy levels increased. In a study by Akkoyun and Taş Arslan,[28] the breastfeeding self-efficacy of the mothers was found to be moderate. In the study of Akkoyun and Taş Arslan[28], age, educational level and employment status, number of pregnancies and deliveries, number of living children and the age of the baby (week) affected breastfeeding self-efficacy. In the studies of Küçükoğlu and Gökçeoğlu[29], many factors related to the mother, the baby, the pregnancy and the environment affected the perception of breastfeeding self-efficacy and milk inadequacy. It was found that as the level of breastfeeding self-efficacy increased, perceived milk sufficiency increased.[29] Otsuka et al.[30] compared the Breastfeeding Self-efficacy Scale and the Perceived Insufficient Milk Questionnaire and similarly found a positive correlation between the two scales. In their study, Yenal et al.[13] compared the mean scores on the Breastfeeding Self-efficacy Scale and LATCH breastfeeding success scores and found that breastfeeding self-efficacy positively affected breastfeeding success. The findings of other studies presented above support the results of our study and showed that there is a positive relationship between breastfeeding self-efficacy and perceived milk sufficiency.

In our study, we found similar results to the literature in that the number of deliveries and having experience of breastfeeding increased the mothers' breastfeeding self-efficacy scores (Table 5). Küçükoğlu and Çelebioğlu[31] examined the breastfeeding self-efficacy and breastfeeding success of mothers and they found that the mean breastfeeding self-efficacy score of those mothers with breastfeeding experience were higher. In the study conducted by Akkoyun and Taş Arslan[28] it was found that the breastfeeding self-efficacy of the mothers increased as

their number of deliveries increased. Having breastfed previous babies increased the experience of the mothers in breastfeeding and had a positive effects on their breastfeeding self-efficacy.

Unlike the literature, the breastfeeding self-efficacy scores of those mothers younger than 25 years were higher in our study (Table 5). It has been suggested that internet usage had a positive effect on the breastfeeding self-efficacy of young mothers by providing access to more information about breastfeeding. Goulet et al.[32] found that the education levels and ages of the mothers were important factors in making decisions about breastfeeding and maintaining breastfeeding. In the study conducted by Akkoyun and Taş Arslan[28] it was found that breastfeeding self-efficacy scale scores increased as the ages of the mothers increased. In our study, unlike the literature, the breastfeeding self-efficacy scores of the mothers decreased as their education levels increased (Table 5). In the study conducted by Akkoyun and Taş Aslan[28] it was observed that the education level of the mothers increased their breastfeeding self-efficacy scores. It is recommended to conduct further studies on this subject.

In our study, a significant difference was found between the mothers' perceived milk insufficiency scores according to their statuses of previous breastfeeding and giving formulas/complementary foods (p=0.00) (Table 5). Similarly, another study found that breastfeeding time was shortened as a result of the perceived inadequacy of breast milk.[26] In the study of Gölbaşı and Koç[33] it was found that the ratio of women who thought that their milk level was insufficient and therefore started to give complementary foods was 41.4%. In a study investigating the causes of using complementary foods in babies aged 0-6 months, 38.8% of the mothers stated that they started to give complementary foods because they thought that the amount of their milk was inadequate.[34]

CONCLUSION

The mothers' perceived breastfeeding self-efficacy was affected by their age, their level of education, their number of deliveries, their status of having breastfed previous babies and their status of giving formulas/complementary foods to their baby. The mothers' perceived breast milk inadequacy affected the use of formulas/complementary foods in infant nutrition. In our study, it was found that when breastfeeding self-efficacy increased, the perceived milk adequacy increased. Mothers should be informed about the sufficiency of their milk with embodiments (weight gain of the baby, not getting sick frequently, etc.) and necessary training and support should be provided on the importance of giving breast milk.

MAIN POINTS

• The mothers' perceived breast milk inadequacy is related with the use of formulas/complementary foods in infant nutrition in the first 6 months.

• One of the most important factors affecting breastfeeding is the maternal perception of their breastfeeding self-efficacy.

• Nurses/midwives can attempt to increase the mothers' self-efficacy in order to increase breastfeeding success.

ETHICS

Ethics Committee Approval: Ethics committee approval was obtained from the Near East University Ethics Committee (approval number: 2018/56-541).

Informed Consent: In order to use the data collection forms, the required written permission was obtained from the chief physicians of the university hospital and the state hospital where this study was conducted.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Concept: Ö.A., D.S.G., Design: Ö.A., D.S.G., G.V., Data Collection and/or Processing: D.S.G., Literature Search: Ö.A., S.T., Writing: G.V.

DISCLOSURES

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