Araştırma Sunumu | Research Article

Determining the Level of Attachment to their Babies of Mothers Who Breastfeed Effectively and Think They Are Sufficient in Breastfeeding: A Cross-Sectional Study / *Etkili Emziren ve Emzirmede Yeterli Olduğunu Düşünen Annelerin Bebekleriyle Bağlanma Düzeyinin Belirlenmesi: Kesitsel Tipte Çalışma*

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Abstract

Introduction: Breastfeeding has well-established short-term benefits, particularly the reduction of morbidity and mortality due to infectious diseases in childhood. Aim: This study aims to determine the relationship between breastfeeding success and breastfeeding self-efficacy and maternal infant attachment. Methods: The study was conducted in Kavaklık Rotary Family Health Center between March -June 2017. The questionnaire form, the LATCH Breastfeeding Identification and Assessment Scale, the Breastfeeding Self-Efficacy Scale(BSES), and the Maternal Attachment Inventory (MAI) were used to collect data in the study. The Kruskall Wallis, Mann, Whitney-U Analysis, Spearman Correlation and Kurtosis and Skewness coefficients, Internal consistency Cronbach α coefficient were used in data analysis. Results: The average score of the LATCH was 9.87±0.42, the BSES was 63.51±10.71 and the MAI was 101.58±2.28. The difference between the average BSES Scores according to the level of education and time when breastfeeding started was statistically significant ($p<0.05$). The statistical relationship between the BSES Score and MAI Score was positive and significant at a low level (*r: 0.249, p=0.002*). Conclusion and suggestions: It was determined that BSES levels were affected by the age of the mother and the time of breastfeeding, and the level of MAI was also affected by the age of the mother. Young mothers had lower attachment levels. It was observed that as BSES score increased, MAI score increased. In line with the results of the research, it is seen that mothers with a high success rate in breastfeeding also have a high level of breastfeeding self-efficacy and maternal bonding.

Keywords: Breast feeding, Health services research, Mother-child relationship, Nursing, self efficacy.

Öz

Giriş: Emzirmenin, özellikle çocukluk çağında bulaşıcı hastalıklara bağlı hastalık ve ölüm oranlarını azaltmak gibi kısa vadeli faydaları vardır. Amaç: Bu çalışma, etkili emziren ve emzirmede yeterli olduğunu düşünen annelerin bebekleriyle bağlanma düzeyinin belirlenmesi amacıyla yapılmıştır. Gereç ve Yöntemler: Araştırma, Kavaklık Rotary Aile Sağlığı Merkezinde Mart-Haziran 2017 tarihleri arasında yapılmıştır. Bu çalışmada Kadınların Sosyo-Demografik Özelliklerini Belirlemeye Yönelik Anket formu, Latch Emzirme Tanılama ve Değerlendirme Ölçeği, Emzirme Öz-Yeterlilik Ölçeği ve Maternal Bağlanma Ölçeği kullanılmıştır. Veriler, SPSS for Windows 17 paket programı ile analiz edilmiştir. Verilerin analizinde Kruskall Wallis ve Mann Whitney U testi, Spearman Korelasyon testi, Kurtosis ve skewness katsayıları, İç tutarlılık Cronbach α katsayısı kullanılmıştır. Bulgular: Ortalama LATCH emzirme tanılama ve değerlendirme ölçeğinden 9.87±0.42, emzirme öz-yeterlilik ölçeğinden 63.51±10.71 ve maternal bağlanma ölçeğinden 101.58±2.28 puandır. Eğitim düzeyi ve emzirme zamanına göre emzirme öz-yeterlilik puan ortalamaları arasındaki fark istatistiksel olarak anlamlı

bulunmuştur ($p<0.05$). Emzirme öz-yeterlilik puanı ile maternal bağlanma puanı arasında istatistiksel olarak pozitif yönlü, düşük düzeyde anlamlı ilişki vardır ($p<0.05$). Sonuç ve öneriler: Emzirme öz-yeterlilik düzeylerinin annenin yaşı ve emzirme zamanından etkilendiği, maternal bağlanma düzeyinin de annenin yaşından etkilendiği belirlenmiştir. Genç annelerin bağlanma düzeyleri daha düşüktü. Emzirme öz-yeterlilik puanı arttıkça maternal bağlanma puanı da artmaktadır. Araştırma sonuçları doğrultusunda emzirmede başarı oranı yüksek, annelerin emzirme öz-yeterliliği ve meternal bağlanma düzeyinin de yüksek olduğu görülmektedir.

Anahtar kelimeler: Emzirme, Sağlık hizmetleri araştırması, Anne-çocuk ilişkisi, Hemşirelik, öz-yeterlilik

1.Introduction

Breast milk is the most suitable source of nutrition during infancy due to its properties, such as the fact that its nutritional content changes according to the needs of the newborn, it supports the baby's health, it meets all of the baby's nutritional needs, it is easily digested and protects against infections, and it alone meets the physiological and psychosocial needs of the baby within the first 4-6 months (Köksal & Özel, 2008; Ekşioğlu & Turfan, 2015).

The *Innocenti Declaration* published in 1990 by the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) emphasizes the importance of providing an environment that facilitates widely spread breastfeeding for women. Also, it emphasizes the importance of providing access to the necessary information, ensuring that breastfeeding starts within half an hour following birth, not giving pacifiers and anything of this type to breastfed babies, feeding babies only with breast milk during their first 4-6 months, and then continuing breastfeeding while also providing adequate complementary foods in the following period (UNICEF 2008; Tunçel et al., 2005; Duran, 2008).

Breastfeeding is also important in terms of emotional bonding. This bond creates a positive mood both in the mother and the baby. The tendency and need to form an emotional bond is an expression of the bonding system that is essential for newborns to continue their development. The bonding system maintains the strength of the physical connection between the newborn and his/her care giver(s) (generally mother) and provides the conditions necessary for the child to explore the environment while helping to protect the child from negative external conditions. Bonding enables the baby to be close to the primary bonding figure, i.e. the mother, and therefore to feel safe (; Terzi & Özbay, 2016). The quality of the relationship between parents and their infant children plays a central role in psychological development. Mother-infant bonding is one aspect of this relationship, referring to the process in which a mother forms an affectionate attachment to her infant (Hairston et al., 2019).

While medical and nutritional benefits of mother's milk are well-established, direct evidence in support of a positive effect on maternal bonding is scant, at best. It has been argued that implicit in the assumption that breastfeeding has positive effects on maternal bonding is the notion that lactation activates endocrine cues that reinforce engagement with the infant (Hairston et al., 2019). Oxytocin release, specifically, has received the most attention, being a key pro-social biological cue that enhances parental care in both human and non-human animals. However, recent evidence suggests that oxytocin is released by parents in response to many innate infant behaviors, such as clinging, facial expressions and vocal calls (Rilling, 2013).

The first attachment experience of the baby is the basis for her/his future attachment experiences. In summary, attachment feelings experienced as dependable or undependable in the newborn period will continue for the whole life (Cetisli et al., 2018). If dependable attachment necessities between the baby

and mother could not be satisfied in the first year, the baby might have emotional, social, physical, mental and speaking developmental problems. In insufficient maternal attachment conditions, the baby runs the risk of negligence and exploitation. Alhusen et al.(2013) declared in their study that mothers who have higher maternal attachment levels were more sensitive, tender and participating parents, affecting the development of the baby positively in their early infancy period. Schwarze et al.(2015) stated in their study that breastfeeding is important in maternal attachment and less breastfeeding is a risk factor for borderline personality disorder.

It is known that there is a connection between the mother's feeling of self-efficacy in breastfeeding and the provision of efficient breastfeeding for the baby. According to the literature, the reason why mothers do not breastfeed completely is the fact that they think their milk is inadequate and hence believe that the baby is not full (Tokat & Okumuş, 2013). This situation is associated with the mother's feeling of self-efficacy in breastfeeding. Breastfeeding success is also affected by many factors besides this. It is stated that one of the important factors that may affect breastfeeding success is the perception of breastfeeding self-efficacy (Yenal et al., 2013). The maternal bonding of mothers who are efficiently breastfeeding and feel that they provide sufficient breast milk is important in terms of the continuity of breastfeeding. In the light of all this information, midwives and nurses have great duties. For the success of breastfeeding and continuity of breastfeeding, mother should be supported and breastfeeding self-efficacy should be increased. Midwives and nurses should be made conscious about the effect of breastfeeding self-efficacy on maternal attachment. Thanks to this awareness, babies with good maternal attachment level will be healthy both mentally and physically. This study was conducted in order to determine the relationship between breastfeeding success and breastfeeding self-efficacy and maternal infant attachment.

2.Materials and Methods

2.1. Type of Research

This was a cross-sectional study.

2.2.Research Population and Sample

This study was conducted with 150 breastfeeding mothers who presented to the Kavaklık Rotary Family Health Center and were willing to participate in the study between March -June, 2017. The Kavaklık Rotary Family Health Center provides a total of 5 physicians, 3 nurses, 2 midwives and 1 staff. In the center, there is a pregnant monitoring and family planning room, a baby care and breastfeeding room, a medical intervention and injection room, a staff room, 2 vaccine rooms, 1 laboratory and a child monitoring room.

The population of the study consisted of 150 breastfeeding mothers who applied to Kavaklık Rotary Family Health Center between March and June 2017. The entire population is included in the sample.

The following inclusion criteria were used to determine participation in the study: the women who had given birth to a single mature baby in their most recent delivery without any health problems in the baby or the mother, who were 19 and older without any disabilities, and who were breastfeeding her baby.

Exclusion Criteria*:* Women who did not breastfeed their babies effectively and regularly, could not be communicated, and refused to participate in the study were not included in the study.

2.3.Data Collection Tools

A questionnaire for determining the socio-demographic characteristics of women, and the LATCH Breastfeeding Identification and Assessment Scale, Breastfeeding Self-Efficacy Scale and Maternal Attachment Inventory were used as data collection tools.

Questionnaire for Determining the Socio-Demographic Characteristics of Women*:* For the data collection, the investigator used a questionnaire form developed by reviewing the literature to investigate the socio-demographic and obstetric characteristics of mothers and the characteristics of the babies (Yenal& Okumuş, 2003; Küçükoğlu & Çelebioğlu, 2013; Kavlak & Şirin, 2009). The questionnaire included questions regarding the age, education status, employment status, health insurance of the participants, whether the spouses live together, number of pregnancies, abortions or miscarriages, mode of delivery, number of children, whether the baby is breastfed, the age of the breastfed baby, and when breastfeeding was started.

Breastfeeding Self-Efficacy Scale(BSES): The Short Form Breastfeeding Self-Efficacy Scale is a 5 point Likert-type scale.1= "Not at all confident" and 5 = "Always confident". As Bandura suggested (1998) all items are positively oriented. The minimum score is 14 and the maximum score is 70 in this scale. A high score indicates high breastfeeding self-efficacy. Dennis suggests the use of the short form. The validation of the scale in Turkish was presented by Tokat as a PhD thesis and Cronbach Alpha reliability coefficient was found 0,94 (2009) (Tokat et al., 2010; Tokat 2009). In this study, Cronbach Alpha reliability coefficient was found 0.92.

Maternal Attachment Inventory (MAI): This scale was developed by Muller in 1994 in order to measure mother-to-infant attachment. The content validity of the scale has been evaluated by a group comprised of language experts, theorists, obstetrics and pediatric nurses and women who recently gave birth. The validity and reliability study of the Turkish MAI form was performed by Kavlak and Şirin and Cronbach Alpha reliability coefficient was found 0,77 (Kavlak & Şirin, 2009; Alan, 2011; Muller, 1994).

This scale has 26 items, where each item is answered through a 4 point Likert-type scale varying between "never" and "always". Each item contains direct statements and is calculated as follows: Always (a)=4 points, A lot (b)=3 points, Rarely (c)=2 points and Never (d)=1 point. A high score means strong maternal bonding. In this scale, the lowest score is 26 and the highest score is 104 (Kavlak & Şirin, 2009; Alan, 2011; Muller, 1994).

LATCH Breastfeeding Identification and Assessment Scale*:* One of the measurement tools used in the evaluation of breastfeeding is LATCH. The LATCH Breastfeeding Assessment Tool was developed by Jensen et al. (1994) (Küçükoğlu et al., 2014; Yenal & Okumuş, 2003). This evaluation tool consists of five assessment criteria and its name is constituted by the initial letters of these criteria in English. Each item is evaluated through 0-2 points. The highest total score of the scale is 10. This evaluation tool does not have a cutoff point and a higher LATCH score indicates high breastfeeding success. The reliability study of the LATCH Breastfeeding Assessment Tool was performed by Adams and Hewell in America in 1997 and the percentage of compliance between independent observers was found to be 94.4%. The reliability study was conducted by Yenal and Okumuş (2003) in Turkey and the Cronbach Alfa value was found to be 0.95 (Yenal & Okumuş, 2003). In this study, Cronbach Alpha reliability coefficient was found 0.91.

2.4.Data Collection

After approval and permission to conduct the study were obtained from the ethics committee, the Family Health Center's responsible physician, head nurse, charge nurse/midwife and other midwives and nurses were interviewed and informed about the purpose and scope of the study. Data were collected by one of the researchers. When they encountered women who met the inclusion criteria of the study, the purpose of the study was explained, and written consents were received from those who agreed to participate in the study. Additionally, during the study, no women requested to withdraw and no women were excluded from the study.

2.4.1.Procedure

Women who met the inclusion criteria of the study and agreed to participate in the study were observed by one of the researchers while breastfeeding her baby in the Family Health Center's breastfeeding room. Then the researcher filled the LATCH Breastfeeding Identification and Assessment Scale. Women who had high breastfeeding success from LATCH were included in the study, total 150 mothers were included. These mothers with a high level of breastfeeding success had the following scores in the LATCH scale: minimum 7, maximum 10, and average 9.87±0.42. The women who had 6 and below scores from LATCH scale were not include into the study. Mothers with a high level of breastfeeding success filled the Breastfeeding Self-Efficacy Scale and Maternal Attachment Inventory.

2.5.Data analysis

The data was analyzed using SPSS for Windows 17 package software. The Shapiro Wilk was used to test whether or not the data were normally distributed. In the data analysis, figures, percentages, minimum and maximum values, mean and standard deviations, Kruskall Wallis Analysis, Mann Whitney-U Analysis Spearman Correlation and Kurtosis and skewness coefficients, Internal consistency Cronbach α coefficient were used.

2.6.Ethical Considerations

Permission was obtained from Gaziantep University Ethics Committee before starting the study. Approval number is 2016/323. Upon obtaining the permission of the Ethics Committee, the permission of Gaziantep Directorate of Public Health was also obtained. Verbal and written consents were received from the mothers included in the study.

3.Results

Distribution of the participants' scores in the LATCH Breastfeeding Identification and Assessment Scale, Breastfeeding Self-Efficacy Scale and Maternal Attachment Scale is provided in Table 1. Accordingly, the participants had an average score of 9.87±0.42 in the LATCH Breastfeeding Identification and Assessment Scale, 63.51±10.71 in the BSES and 101.58±2.28 in the MAI (Table 1).

Table 1. Distribution of participant scores in the LATCH Breastfeeding Identification and Assessment Scale, Breastfeeding Self-Efficacy Scale and Maternal Attachment Scale

	n	Min	Max	mean	SD
Latch Breastfeeding Identification and Assessment Scale	150	7	10	9.87	0.42
Breastfeeding Self-Efficacy Scale	150	14	70	63.51	10.71
Maternal Attachment Inventory	150	94	104	101.58	2.28

A comparison of the Breastfeeding Self-Efficacy Scale Scores of participants according to socio-demographic and obstetric characteristics is provided in Table 2. The difference between the average BSES according to the level of education and time when breastfeeding started was statistically significant (Table 2, $p<0.05$). Mothers that start breastfeeding right after giving birth have a higher average Self-Efficacy Score. Concerning the education level, further analysis was performed in order to determine which education level the difference originates from and this revealed that elementary school graduates had higher average scores compared to literate women and secondary school graduates, whereas university graduates had higher average scores than elementary school graduates.

Table 2. A comparison of Breastfeeding Self-Efficacy Scores of participants by socio-demographic and obstetric characteristics

		Breastfeeding Self-Efficacy				χ^{2*} P**
		n	median	mean	SD	
Age group	Ages 15-24	23	65	63.26	11.19	x^2_{KW}=0.385 p=0.825
	Ages 25-34	97	67	63.57	10.84	
	Ages 35-44	30	66,50	63.50	10.28	
Level of Education	Literate	7	63	57.43	16.41	x^2_{KW}=7.859 **p=0.049****
	Elementary school graduate	34	68,50	65.03	9.77	
	Secondary school graduate	37	66	60.43	14.70	
	University	72	67	64.96	7.23	
Employment Status	Yes	47	67	63.47	11.03	U***=2401.000 p=0.936
	No	103	66	63.52	10.62	
Health Insurance	Private insurance	4	64,50	64.75	1.71	x^2_{KW}=2.136 p=0.545
	Green card	10	68	66.20	4.39	
	Social security agency	129	67	63.05	11.41	
	No Health Insurance	7	67	67.29	2.98	
Living with Spouse	Yes	148	67	63.49	10.78	U***=107.500 p=0.502
	Separated	2	64,50	64.50	2.12	
Number of Pregnancies	1-2	82	66	63.50	10.38	x^2_{KW}=0.360 p=0.835
	3-4	50	67,50	62.76	12.64	
	5 and above	18	66,50	65.61	4.96	
Miscarriage	Yes	31	67	63.35	10.70	U***=1808.500 p=0.866
	No	119	66	63.55	10.76	
Abortion	Yes	33	67	64.52	9.83	U***=1729.000 p=0.355
	No	117	66	63.22	10.97	
Last Mode of Delivery	C-section	102	66,50	64.02	9.53	U***=2404.500 p=0.859
	Vaginal delivery	48	67	62.42	12.60	
Number of Living Children	1-2	98	66	63.85	9.61	U***=2392.000 p=0.533
	3-4	52	67	62.87	12.62	
Infant's Age (Months)	0-3	83	67	63.83	11.46	x^2_{KW}= 5.797

	4-6	29	66	63.55	10.60	p=0.215
	7-9	15	66	64.00	5.00	
	10-12	9	67	65.22	4.55	
	Over one year old	14	63	59.86	13.68	
Time When Breastfeeding Started	Right after birth	147	67	63.93	9.98	U***=56.000 **p=0.025****
	At least one month after birth	3	50	43.00	25.24	

Notes: * Kruskal wallis test, ** p < .05,*** Mann Whitney-U test

A comparison of the Maternal Attachment Inventory Scores of the participants by socio-demographic and obstetric characteristics is provided in Table 3. The difference between the average MAI Scores according to the participants' age group was statistically significant as seen in Table 3 (p<0.05). Further analysis performed in order to determine which age group the difference originates from revealed that women in the 25-34 age group (101.92±2.03) had higher Maternal Attachment Inventory Scores compared to women in the 15-24 age group(100.43±2.86).

Table 3. Comparison of Maternal Attachment Inventory Scores of the participants by socio-demographic and obstetric characteristics

		Maternal Attachment Inventory Scores				χ^{2*} P**
		n	median	mean	SD	
Age group	Ages 15-24	23	101	100.43	2.86	x^2_{KW}=6.414 **p=0.040****
	Ages 25-34	97	102	101.92	2.03	
	Ages 35-44	30	101,50	101.33	2.29	
Level of Education	Literate	7	102	101.14	2.67	x^2_{KW}=3.219 p=0.359
	Elementary school graduate	34	102	101.76	1.94	
	Secondary school graduate	37	101	101.11	2.32	
	University	72	102	101.75	2.37	
Employment Status	Yes	47	102	101.62	2.19	U***=2410.00 p=0.965
	No	103	102	101.56	2.32	
Health Insurance	Private insurance	4	103	101.50	3.79	x^2_{KW}=0.962 p=0.811
	Green card	10	100,7	101.14	2.38	
	Social security institution	129	102	101.58	2.27	
	No Health Insurance	7	102	102.14	1.46	
Living with Spouse	Yes	148	102	101.59	2.29	U***=93.000 p=0.358
	Separated	2	100,7	100.70	0.99	
Number of Pregnancies	1-2	82	102	101.61	2.48	x^2_{KW}=0.771 p=0.680
	3-4	50	102	101.54	2.06	
	5 and above	18	101	101.52	1.94	
Miscarriage	Yes	31	102	101.77	2.29	U***=1740.000 p=0.621
	No	119	102	101.52	2.28	

Abortion	Yes	33	101	101.32	2.42	U***=1752.000 p=0.409
	No	117	102	101.65	2.24	
Last Mode of Delivery	C-section	102	102	101.69	2.13	U***=2317.500 p=0.592
	Vaginal delivery	48	102	101.34	2.56	
Number of Living Children	1-2	98	102	101.61	2.41	U***=2352.500 p=0.431
	3-4	52	101,7	101.51	2.03	
Infant's Age (Months)	0-3	83	102	101.41	2.32	x^2_{KW}=6.244 p=0.182
	4-6	29	102	102.17	1.91	
	7-9	15	102	102.20	2.34	
	10-12	9	101,4	101.60	1.58	
	Over one year old	14	101	100.64	2.79	
Time When Breastfeeding Started	Right after birth	147	102	101.59	2.29	U***=145.000 p=0.302
	At least one month after birth	3	101	100.67	1.53	

Notes: * Kruskal wallis test, ** p < .05,*** Mann Whitney-U test

The review of the relationship between LATCH Breastfeeding Identification and Assessment Scale, Breastfeeding Self-Efficacy Scale, and Maternal Attachment Inventory Scores is presented in Table 4. Accordingly, there is no statistically significant relationship between LATCH Score and BSES Score and MAI Score (Table 4, p>0.05). The statistical relationship between the BSES Score and MAI Score was positive and significant at a low level (*r: 0.249, p=0.002;* table 4, p<0.05). Maternal Attachment Inventory Score increases in direct proportion with the Breastfeeding Self-Efficacy scale Score.

Table 4. A review of the relationship between LATCH Breastfeeding Identification and Assessment Scale, Breastfeeding Self-Efficacy Scale, and Maternal Attachment Inventory Scores

		Latch Breastfeeding Identification and Assessment	Breastfeeding Self-Efficacy	Maternal Bonding
Latch Breastfeeding Identification and Assessment	r*	-	0.020	0.067
	P**		0.811	0.416
Breastfeeding Self-Efficacy	r*	0.020	-	0.249
	P**	0.811		0.002**
Maternal Attachment Inventory	r*	0.067	0.249	-
	P**	0.416	0.002**	

Notes: * Spearman correlation test , ** p < .05

4.Discussion

This research was conducted to determine the relationship between breastfeeding success and self-efficacy and maternal attachment. Similar studies have been found in the literature (Bostancı & İnal, 2012; Cömert, 2011; Akkoyun & Arslan, 2016). Unlike this study, in other studies, mothers with low and high breastfeeding success were considered together. Also only pospartum self-efficacy or maternal attachment levels were examined (Bostancı & İnal, 2012; Cömert, 2011; Akkoyun & Arslan, 2016). In this study, first of all, 150 mothers who had high breastfeeding success were identified using the LATCH scale. These mothers with a high level of breastfeeding success had the following scores in the LATCH scale: minimum 7, maximum 10, and average 9.87±0.42. High scores in this scale indicate breastfeeding success. Similar results were obtained in other studies (Bostancı & İnal, 2012; Küçükoğlu & Çelebioğlu, 2013). In a study conducted by Küçükoğlu and Çelebioğlu (2013) to investigate breastfeeding self-efficacy levels and breastfeeding success, the average LATCH score was found to be 7.8±2.4

(Küçükoğlu & Çelebioğlu, 2013). In a study conducted by Bostancı and İnal (2012), the same was revealed to be 8.8±1.46 (Bostancı & İnal, 2012). In the study conducted by Çetişli et al. (2018) the LATCH score average was found to mothers who had vaginal birth scored 7.83±1.88, while those who underwent cesarean section scored 7.04±2.31 points. The fact that mothers who participated in this study had high average LATCH scores was thought to be possibly associated with the fact that the health center where the study was conducted was baby-friendly, with support provided to mothers regarding successful breastfeeding technique.

In present study, no significant relationship was identified between the average LATCH scores of participants and their age, and education level ($p>0.05$). In the study, the difference between the mean number of LATCH scores and the number of pregnancies and live children is statistically significant ($p <0.05$). Mothers with a live child 1-2 have higher LATCH scores. For the number of pregnancies, in the advanced analysis to determine which pregnancy number the difference originated from; It was determined that the scores of those with 1-2 pregnancies were higher than those of 3-4 and 5+. Similarly, in the study of Bostancı and İnal (2012), no significant relationship was identified between the average LATCH scores of mothers and their age, education level and total number of children (Bostancı & İnal, 2012). In this study, the reason for the low breastfeeding success of the mothers with a higher number of children compared to other mothers may be that mothers had to allocate time for their other children and therefore they could not allocate enough time for breastfeeding.

The average Breastfeeding Self-Efficacy Scale scores of mothers was found to be 63.51±10.71. Other studies provided different results. The average score of the Breastfeeding Self-Efficacy Scale was 58.98±8.14 in the study of Cömert (2011), 59.18±9,46 in the study of Akkoyun and Arslan (2016), and 41.54±10.87 in the study of Küçükoğlu and Çelebioğlu (2013) (Akkoyun & Arslan, 2016; Cömert, 2011; Küçükoğlu & Çelebioğlu, 2013). In this study, Breastfeeding Self-Efficacy Scale score average was found higher than other studies. The reason for this is that 98% of the women who participated in the study breastfeed their babies immediately after birth, and Breastfeeding Self-Efficacy Scale mean scores of the mothers breastfeeding immediately after birth were higher than other mothers ($p <0.05$). Concerning the mode of delivery of mothers within the scope of this study, 68% of women had a C-section, whereas 32% had vaginal delivery. In our study, the difference between mode of delivery and the average scores in the BFSE Scale was not statistically significant ($p>0.05$). Other studies also provided similar results (Akkoyun & Arslan, 2016; Baysal et al., 2014; Cömert, 2011, Dennis, 2003; Gregory et al.,2008).

In present study, a statistically significant difference was found between the education level of the participants and the average breastfeeding self-efficacy score ($p<0.05$). The average Breastfeeding Self-Efficacy Scores of elementary school graduates and university graduates were higher than the scores of literate women. Similarly, in the study of Küçükoğlu and Çelebioğlu (2013), it was found that mothers with university level education had higher breastfeeding self-efficacy scores than mothers with other education levels ($p<0.05$) (Küçükoğlu & Çelebioğlu, 2013). In the study of Tokat and Okumuş (2013), Breastfeeding Self-Efficacy Scores of mothers who had lower level of education and worse economic conditions was found lower than other mothers (Tokat & Okumuş, 2013). In the study of Dagher et al.(2016) breastfeeding initiation were higher for women who: held professional jobs, were primiparae, had graduate degree, did not smoke prenatally, had no breastfeeding problems, and had family or friends who breastfeed (Dagher et al.2016). Similarly, according to the study conducted by Baysal et al., (2014), the average Breastfeeding Self-Efficacy Scores of university graduate mothers were higher than those of other mothers and the difference between groups was statistically significant ($p<0.05$) (Baysal et al., 2014). These studies and our study reveal the effect of education level on mothers' self-efficacy. Breastfeeding self-efficacy level increases as the level of education increases.

In present study, 98% of the participants breastfeed their babies immediately after birth. The difference between breastfeeding self-efficacy score averages according to education level and breastfeeding time is statistically significant ($p<0.05$). The average Breastfeeding Self-Efficacy Score of Mothers that start breastfeeding right after giving birth were higher. For the education level, in the advanced analysis to determine from which education level the difference originates; it was determined that the mean scores of primary school graduates are higher than those of literate and secondary school graduates, and the mean scores of those who are university graduates are higher than those who are literate. Yıldız et al.,(2008) conducted a study in order to determine the breastfeeding circumstances of mothers who had babies aged 0-11 months old and the influencing factors, and found that 76% of mothers started breastfeeding within one hour of giving birth, and that mothers who started breastfeeding within one hour after delivery continued breastfeeding their babies for a longer time compared to mothers who started breastfeeding over one hour after giving birth (Yıldız et al., 2008). Ünsal et al., (2005) found that 71.8% of mothers breastfed their babies within one hour of delivery and that starting breastfeeding early had a positive effect on feeding the baby only with breast milk during the first six months (Ünsal et al., 2005). Cömert (2011), reviewing the distribution of the BFSE Scale average scores of mothers included in the study according to the time when breastfeeding started, it was seen that mothers who start breastfeeding within the first hour had higher average BFSE Scores and the difference was significant according to the statistical analysis results ($p<0.05$) (Cömert, 2011). According to the experimental study conducted by Ekşioğlu and Turfan, (2015), the relationship between the Breastfeeding Self-Efficacy Scale Scores of mothers who started breastfeeding within one hour of giving birth and mothers who started breastfeeding after they were discharged was found to be statistically significant ($p<0.01$) (Ekşioğlu & Turfan, 2015). Apart from these studies, Baysal et al., (2014) found that there was no statistically significant difference between the time when breastfeeding started and mothers' breastfeeding self-efficacy levels ($p>0.05$). This result might be due to the fact that the study also included ill babies (Baysal et al., 2014).

The Maternal Attachment Inventory average scores of mothers included in this study was 101.58±2.28. The average score in the MAI was found to be 96.53±9.25 in Alan's (2011) study and 94.87±6.048 in Kavlak's (2004) study (Alan, 2011; Kavlak, 2004). Şen (2007) found that mothers with one-month old babies had an average score of 97.19±8.48, mothers with two-month old babies had an average score of 96.41±8.48, mothers with three-month old babies had an average score of 98.64±7.68, and mothers with four-month old babies had an average score of 96.31±8.75 in the MAI (Şen, 2007). It is seen that the MAI average score is higher in our study compared to other studies. There was statistically significant difference between age groups and Maternal Attachment Inventory Average Scores ($p<0.05$). Further analysis performed in order to determine which age group the difference originated from revealed that women in the 25-34 age group had higher maternal bonding average scores compared to women in the 15-24 age group. Unlike the findings in our study, Şen (2007) found that young mothers had higher Maternal Attachment Inventory Scores in comparison to mothers aged 38 and above (Şen, 2007). In the study of Alan (2011), there was no relationship between the mother's age and the mean score of the MAI (Alan, 2011). Kavlak (2004) found that maternal age was not effective in the MAI score (Kavlak, 2004). It is thought that these differences are caused by different social cultural characteristics of mothers.

The statistical relationship between the Breastfeeding Self-Efficacy Score and Maternal Attachment Inventory Scores was positive and significant at a low level ($p<0.05$). As breastfeeding self-efficacy score increases, maternal attachment score also increases. In the study conducted by Hairston et al., (2019) to confirm whether a positive association between breastfeeding and bonding exists and whether breastfeeding may be protective against the negative consequences of mood and sleep disturbances on bonding, breastfeeding was associated with greater daytime fatigue, but not with any other sleep problem, and was not associated with bonding. In the study of Çetişli et al.(2018), a relation was

determined between maternal attachment and breastfeeding behaviors in both vaginal and cesarean birth. In the study by Liu et al., (2013) the authors stated that breastfeeding was an important factor affecting mother-baby attachment, while the internalization of behavior disorders by the child would be related to weak mother-baby attachment. Similarly, in the studies by Alhusen et al. (2013) and Schwarze et al., (2015) the authors stated that psychological problems related to lack of attachment in childhood were observed in babies that were not breastfed at all or were seldom breastfed. Breastfeeding increases maternal attachment and develops a deep and indelible connection with the baby.

5.Conclusion

It was found that breastfeeding self-efficacy levels were affected by the age and the time when breastfeeding started. For this reason, it is important that mothers start breastfeeding early. Midwives nurses should be made conscious in this direction. It should be ensured that midwives and nurses give breastfeeding training to mothers in the prenatal period and encourage breastfeeding in the early postpartum period. It has been determined that maternal attachment level is affected by the age of the mother. Young mothers had lower attachment levels. Therefore, midwives and nurses should raise awareness about the negative effects of being a mother at an early age in terms of mother and baby and the consequences of this. It is important for midwives and nurses to include this issue in their education for women, in terms of maternal-infant health and healthy bonding. It was observed that as breastfeeding self-efficacy score increased, maternal attachment score increased. In order to increase breastfeeding self-efficacy of mothers, healthcare professionals should support mothers and encourage breastfeeding. Breastfeeding Mothers with low self-efficacy should be identified and followed by midwives and training should be provided.

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