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Research Article / Araştırma Makalesi

Examination of Breastfeeding Behaviours of Mothers in the Mediterranean Region in Turkey: A Cross–Sectional Study*

Türkiye'de Akdeniz Bölgesi'ndeki Annelerin Emzirme Davranışlarının İncelenmesi: Kesitsel Bir Çalışma*

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ABSTRACT

Introduction: Breastfeeding rates in Turkey are still below the target breastfeeding rates of the World Health Organization. To boost breastfeeding rates, it is vital to know women's nursing behaviour as well as the variables influencing breastfeeding behaviour. We aimed to determine the breastfeeding behaviours of mothers and the factors affecting these behaviours who applied to a state hospital in the Mediterranean region.
Methods: The descriptive, cross - sectional, quantitative study was conducted with 553 mothers who applied to a state hospital between 30 December 2019 and 29 June 2020. The data were collected using a paper-based questionnaire form prepared by the researchers and the LATCH Assessment Tool. Statistical analysis was done with IBM SPSS 20.0. Frequency, percentage, mean, standard deviation, Chi-Square test, Mann-Whitney U test and Kruskal Wallis test were used for data analysis.
Results: We found that half of the participants had received education on breastfeeding before the study. Participants who received this education from a midwife had higher rates of breastfeeding within the first hour, the infant's first oral food being colostrum, and LATCH scores ($p<0.05$).
Conclusion: It was concluded that breastfeeding counselling and education affected breastfeeding behaviour. There is a need for studies evaluating the content effectiveness of breastfeeding counselling and education, by whom and when.

*This study was presented as oral presentation at the 4th International 5th National Istanbul Midwifery Days Congress (online) between 24-26 September 2021.

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ÖZET

Giriş: Türkiye'de emzirme oranları halen Dünya Sağlık Örgütü'nün hedeflediği emzirme oranlarının altındadır. Emzirme oranlarını artırmak için kadınların emzirme davranışlarının belirlenmesi ve emzirme davranışını etkileyen faktörlerin belirlenmesi gerekmektedir. Bu çalışmada, Akdeniz bölgesinde bir devlet hastanesine başvuran annelerin emzirme davranışlarını ve bu davranışları etkileyen faktörleri belirlemeyi amaçladık.
Yöntem: Tanımlayıcı, kesitsel, nicel tipte olan çalışma, 30 Aralık 2019-29 Haziran 2020 tarihleri arasında bir devlet hastanesine başvuran 553 anne ile yapılmıştır. Veriler, araştırmacılar tarafından hazırlanan basılı anket formu ve LATCH Emzirme Tanılama Ölçeği kullanılarak toplanmıştır. İstatistiksel analiz IBM SPSS 20.0 ile yapıldı. Verilerin analizinde frekans, yüzde, ortalama, standart sapma, Ki-Kare testi, Mann-Whitney U testi ve Kruskal Wallis testi kullanılmıştır.
Bulgular: Katılımcıların yaklaşık yarısının çalışma öncesinde emzirme konusunda eğitim aldığını belirledik. Emzirme eğitimini ebeden alan katılımcıların doğumdan sonra ilk 1 saat içinde emzirme ve bebeğin ağızdan aldığı ilk besinin kolostrum olma oranları ile LATCH skorları daha yüksek bulundu ($p<0.05$).
Sonuç: Emzirme danışmanlığı ve eğitiminin emzirme davranışını etkilediği belirlendi. Emzirme danışmanlığı ve eğitiminin içerik etkinliğini, kim tarafından, ne zaman ve ne zaman uygulanacağını değerlendiren çalışmalara ihtiyaç vardır.

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1. Introduction

Breastfeeding is a learned behaviour based on a combination of maternal and infant characteristics, health systems, and family, community and professional support (1,2). Human milk is defined as a 'personalized medicine' for the baby due to the stimulation of the baby's immune system, the formation of microbial changes in the gastrointestinal system, and the stimulation of epigenetic programming (3). World Health Organization (WHO) recommends babies to be fed only with human milk for the first 6 months and continue breastfeeding for at least two more years with supplementary foods (4).

It is known that mothers in low-income countries breastfeed their babies longer than in upper-middle-income countries (5). In the UNICEF 2022 report, the rate of breastfeeding in the first hour after childbirth is 47%, while the rate of exclusive breastfeeding in the first six months is 48% (6). However, in the UNICEF 2019 press release, it was reported that the countries with the highest breastfeeding rate were Rwanda 86.9%, Burundi 82.3%, and Sri Lanka 82%, respectively (7). Worldwide, 12-month breastfeeding rates are highest in Sub-Saharan Africa, South Asia, and parts of Latin America, but fall below 20% in many upper-income countries (8). In Turkey, according to the results of the Turkey Demographic and Health Survey (TNSA) 2018 report, it was determined that the mean duration of breastfeeding was 16.7 months, the rate of breastfeeding in the first 6 months was 88%, and 39% in the twenty-four months (9). According to the report results many babies have some exposure to breast milk, but probably not as much as would be optimal for them according to medical guidelines (10). According to the results of previous studies, it has been determined that many modifiable factors such as the mother's knowledge and skills on breastfeeding, cultural, social and economic situation, self-efficacy, support system, skill of health personnel, breastfeeding immediately after birth, individual and family beliefs affect the mother's intention to breastfeed and the continuity of breastfeeding (11–14). Accordingly, it is important to understand women's behaviour regarding breastfeeding.

As the benefits of human milk and breastfeeding to mothers and babies are well known, improving rates of initiation and continuation of breastfeeding has become a universal goal (15). Although the rate of starting breastfeeding is high in Turkey, the rate of continuation to breastfeeding is low (9). Although there are many studies on breastfeeding in the literature, the number of studies examining the breastfeeding behaviour of mothers is insufficient in Turkey (16,17). In this context, the primary aim of our study is to determine the breastfeeding behaviours of women who presented to a state hospital in the Mediterranean region of Turkey. The secondary aim of our study is to determine the effect of breastfeeding education on breastfeeding behaviour of women.

2. Methods

2.1. Study design

This is a descriptive, cross-sectional quantitative study.

2.2. Setting

Turkey consists of seven regions geographically. Although breastfeeding rates of babies under the age of 2 years at some point in their lives are similar in all regions, this rate is 97.3% in the Mediterranean Region. Although the main aim of the "Breastfeeding and Baby-Friendly Health Institutions Program" to protect, encourage and support breastfeeding has been continued since 1991, again in this region, the rate of breastfeeding of babies in the first hour after birth is 72.6% and prelacteal food intake is 36.5% (9). Within the scope of this program, breastfeeding education and counselling are provided to mothers in the way of individual / group education during pregnancy and postpartum periods in state hospitals that are "Baby Friendly Hospitals". Additionally, if they request, mothers can get this education from breastfeeding counselling polyclinics in private hospitals or independent midwives for a certain fee. Basically, it consists of breastfeeding counselling and education that can be given independently of the childbirth preparation class, the benefits of breastfeeding, breastfeeding techniques, difficulties encountered during breastfeeding and solution suggestions, increasing human milk production, breastfeeding positions and techniques. Breastfeeding consultants act according to the breastfeeding needs of babies and address mothers' concerns about breastfeeding. Breastfeeding education and counselling are generally provided by midwives, obstetrics and gynaecology nurses and obstetricians in Turkey. This study was conducted in a state hospital in the Mediterranean region of Turkey.

2.3. Participants

The target population was mothers with healthy babies between the age of 2 years and younger who applied to the paediatric polyclinics of a state hospital under the title of Baby-Friendly Hospital for routine healthy child control purposes. There are four Child Health and Diseases polyclinics in the state hospital where the research was conducted. In November 2019, an average of 1889 babies at the age of two and under has been applied to the Child Health and Diseases polyclinics. However, since it was not possible to reach all mothers, sampling was deemed appropriate, and convenience sampling method was used as the sampling method. In line with this

population number, according to the sample calculation in the population where the number of individuals in the target population is known to determine the sample size, the minimum sample number to represent ± 0.05 sampling error at 99% confidence interval was determined as 492. Considering possible case losses in the study, the number of samples was increased by 10% and it was aimed to reach a minimum of 541 participants. Finally, between 30 December 2019 / 29 June 2020, 553 suitable participants were included in the sample.

Inclusion criteria were to give birth between the ages of 18-45, to have a 5-minute APGAR score of 7 and above, not to have a known congenital disease, or not to have a chronic disease that prevents breastfeeding, and to speak and understood Turkish. Mothers were excluded from the study with an adopted child and babies who need special care that could significantly prevent breastfeeding (babies with galactosemia etc.), and mothers with a condition that prevents breastfeeding (mothers with untreated and active tuberculosis infections etc.).

2.4. Data collection tools

The questionnaire form used in data collection consists of two parts: personal information form and LATCH assessment tool.

Personal Information Form: The form was created based on the clinical experience of the researchers and the subjects emphasized by the researchers in previous studies (1). The form consists of 19 questions about the personal and obstetric characteristics of the mothers, information about the baby.

Human Milk and Breastfeeding Information Form: The form was also created based on the clinical experience of the researchers and the subjects emphasized by the researchers in previous studies (18,19). The form includes 17 questions about mothers' breastfeeding information and behaviour (first breastfeeding time after birth, breastfeeding education, baby's first oral food, the duration of exclusive breastfeeding etc.).

LATCH Assessment Tool: The tool is a diagnostic method first created in 1986 by Jensen et al. by analogy with the APGAR score system in terms of scoring method used to evaluate breastfeeding success. The tool consists of five evaluation criteria: L, breast holding; A, seeing/hearing the baby's swallowing movement; T, type of nipple; C is the mother's comfort concerning the nipple and nipple, and H is the holding position for the baby (20). It is evaluated by the researcher while the mother is breastfeeding by observation. Each item is evaluated between 0-2 points and the highest total score that can be obtained from the scale is 10. As the score obtained from the scale increases, the success of breastfeeding increases in directly proportional. The Cronbach alpha value of the original scale is 0.93, and it is 0.95 in the Turkish adaptation study (21).

2.5. Data collection

The data were collected by the researchers in an empty room in the hospital, using a self-reporting technique between 30 December 2019 / 29 June 2020. It took about 15-20 minutes to complete each form. The participants were informed verbally and in writing about the purpose of the study, that their information would be confidential, that they could leave the interview whenever they wanted, and that their participation was voluntary. There were no missing data as the data were collected under the supervision of the researcher. After the data collection forms were transferred to the computer environment and the data set was created, they were stored in a locked cabinet belonging to the researcher.

2.6. Statistical analyses

The numerical analysis of the study was performed using Statistics Package Program for Social Sciences (SPSS) 22 (Armonk, New York, USA). Median and standard deviations of the participants were calculated in the analysis of sociodemographic and obstetric variables. The distribution of variables was measured with the Kolmogorov-Smirnov test, and it was found that the data did not show normal distribution. Man-Whitney U test and Kruskal Wallis Test were used to compare the quantitative data. Comparison analysis of categorical data between groups was made using the Chi-square test. The obtained results were evaluated at 95% confidence interval and 5% significance level. Statistically, a p-value of less than 0.05 was significant.

2.7. Ethical considerations

Before starting to collect data, ethical approval (meeting dated on 26.12.2019, 21 number of decisions) from Hatay Mustafa Kemal University-affiliated Non-Interventional Clinical Research Ethics Committee and written permissions from the institutions where the research was conducted were obtained. The study was conducted under the Helsinki Declaration Principles. Approvals are obtained by the participants giving information verbally and written about the purpose of the study, the confidentiality of information, and participants could leave the interview at any time and participation is voluntary.

3. Results

Some characteristics of the mothers and her babies taking part in the study are given in Table 1. The mean age of the mothers was 28.1±5.9 (18-45) years. 79.6% of the mothers were married and did not experience any health problems during their pregnancy, 55.5% before 38th gestational week, 44.3% between 38-42 weeks of

gestation, and a mother (0.2%) gave birth after 42 weeks of gestation, 51.2% had a baby girl, 23% attended the birth preparation class, and 85.7% of those who attended the education received this education from the midwife.

Table 1. Some characteristics of participants and babies (n=553)

Characteristic	n (%)
Working status	
Working	96 (17.4)
Not Working	457 (82.6)
Living place	
Urban	48 (8.7)
County	220 (39.8)
Rural	285 (51.5)
Family type	
Nuclear family[a]	421 (76.1)
Extended family[b]	132 (23.9)
Monthly family income	
Low	296 (53.5)
Middle	207 (37.4)
High	50 (9.0)

[a] Nuclear family = A family of mother, father and unmarried children.
[b] Extended family = The broader form of the nuclear family, usually organized around a one-sided lineage group, consisting of close relatives such as grandfather, grandmother, uncle, aunt.

In Table 2, the breastfeeding beliefs and behaviours of the participants are examined. The mean duration of breastfeeding of mothers' babies at one time was found to be 20.8 ± 8.81 minutes. In addition, it was found that 49% (n = 271) of the mothers gave the formula to their babies before and 68.3% of them recommended the formula by their doctor, and 58.7% (n = 325) gave their baby food other than human milk before 6 months. The reason for giving food other than human milk was the mother's thought that her milk was not enough (42.5%, n = 138), the baby did not gain enough weight (19.1%, n = 62), did not want to suck (12.3%, n = 40), cried constantly (9.5%, n = 31), the mother started work (6.5%, n = 21), did not sleep (5.8%, n = 19), and became pregnant again (4.3%, n = 14).

The rate of breastfeeding babies of mothers who gave birth normally in the first hour (75.8%, n = 144) was higher than mothers who had a caesarean delivery (71.5%, n = 258), but this difference was not statistically significant ($X^2 = 3.567$, p = 0.168).

Table 2. Breastfeeding beliefs and behaviour of the participants (n=553)

	Mean±SD (min-max)
LATCH total score	9.11±1.18 (1-10)
Breastfeeding behaviours	**n (%)**
First breastfeeding time after birth	
0-1 hour	402 (72.7)
1 hour later	99 (17.9)
Not breastfeeding	52 (9.4)
Breastfeeding counselling and education	
Yes	276 (49.9)
No	277 (50.1)
The person who received breastfeeding counselling and education	
Midwife	197 (71.5)
Nurse	62 (22.4)
Physician	17 (6.1)
Baby's first oral food	
Colostrum	383 (69.3)
Formula	111 (20.1)
Sugar water	38 (6.9)
Other[a]	21 (3.8)
The duration of exclusive breastfeeding	
0-2 month	52 (9.1)
3-4 month	86 (15.2)
5-6 month	348 (63.9)
6 months over	67 (11.8)
Using a bottle	
Yes	216 (39.1)
No	337 (60.9)
Using a pacifier	
Yes	136 (24.6)
No	417 (75.4)
Babies should be breastfed up to	
0-12 month	44 (7.8)
13-24 month	476 (86.4)
Above 24 months	33 (5.8)
Thought to breastfeed babies up to	
0-12 month	96 (17.4)
13-24 month	432 (78.1)
Above 24 months	25 (4.5)
Continuing to breastfeed when the baby was sick	
Yes	472 (85.4)
No	81 (14.6)
Knowing milking techniques and storage conditions	
Yes	361 (65.3)
No	192 (34.7)
Washing hands before breastfeeding	
Yes	511 (92.4)
No	42 (7.6)

[a] Other = Wet nurse milk, yoghurt, water

The relationship between the participants who received breastfeeding counselling and education, and those who did not and their breastfeeding beliefs and behaviours are given in Table 3.

Table 3. The relationship between breastfeeding beliefs and behaviours of mothers who received and did not receive breastfeeding counselling and education (n=553)

	Received education of breastfeeding (n=276)	Did not receive education of breastfeeding (n=277)	Test value / p
Breastfeeding beliefs and behaviours	Mean ± SD / Range	Mean ± SD / Range	
LATCH total score	9.28±1.06 (4-10)	8.94±1.28 (1-10)	-3.843/0.000[a]
	n (%)	**n (%)**	
First breastfeeding time after birth			
0-1 hour	215 (77.9)	187 (67.5)	7.637/0.022[b]
1 hour later	41 (14.9)	58 (20.9)	
Not breastfeeding	20 (7.3)	32 (11.6)	

Table 3. The relationship between breastfeeding beliefs and behaviours of mothers who received and did not receive breastfeeding counselling and education (n=553) (continued)

	Received education of breastfeeding (n=276)	Did not receive education of breastfeeding (n=277)	Test value / p
	n (%)	n (%)	
Baby's first oral food			
Colostrum	208 (75.4)	175 (63.2)	
Formula	46 (16.7)	65 (23.5)	10.111/0.018[b]
Sugar water	15 (5.4)	23 (8.3)	
Other	7 (2.5)	14 (5.1)	
The duration of exclusive breastfeeding			7.798/0.050[b]
0-2 month	17 (6.2)	35 (12.6)	
3-4 month	44 (15.9)	42 (15.2)	
5-6 month	184 (66.7)	164 (59.2)	
6 months over	31 (11.2)	36 (13.0)	
Using a bottle			
Yes	102 (37.0)	114 (41.2)	1.024/0.312[b]
No	174 (63.0)	163 (58.8)	
Using a pacifier			
Yes	62 (22.5)	74 (26.7)	1.347/0.246[b]
No	214 (77.5)	203 (73.3)	
Babies should be breastfed up to			
0-12 month	17 (6.2)	27 (9.7)	4.725/0.094[b]
13-24 month	238 (86.2)	238 (85.9)	
Above 24 months	21 (7.6)	12 (4.3)	
Thought to breastfeed babies up to			
0-12 month	36 (13.0)	60 (21.7)	7.284/0.026[b]
13-24 month	226 (81.9)	206 (74.4)	
Above 24 months	14 (5.1)	11 (2.0)	
Continuing to breastfeed when the baby was sick			
Yes	238 (86.2)	234 (84.5)	0.341/0.559[b]
No	38 (13.8)	43 (15.5)	
Knowing milking techniques and storage conditions			
Yes	200 (72.5)	161 (58.1)	12.545/0.000[b]
No	76 (27.5)	116 (41.9)	
Washing hands before breastfeeding			
Yes	255 (92.4)	256 (92.4)	0.000/0.990[b]
No	21 (7.6)	21 (7.6)	

[a] Mann-Whitney U test, [b] Chi-Square test, $p<0.05$

In Table 4, the relationship between the breastfeeding behaviours of the participants according to the profession in which breastfeeding education was taken was examined, and the average LATCH total score of the mothers who received breastfeeding education from midwives and the rate of the baby's first oral food being colostrum was higher ($p\leq0.001$).

Table 4. Relationship between breastfeeding behaviours of the participants according to the profession in which breastfeeding education was received (n=276)

	Midwife (n=197)	Nurse (n=62)	Physician (n=17)	Test value / p
	Mean ± SD / Range	Mean ± SD / Range	Mean ± SD / Range	
LATCH total score	9.40±0.98 (5-10)	9.01±1.23 (4-10)	8.81±1.10 (6-10)	13.251/0.00[a]
Breastfeeding behaviours	n (%)	n (%)	n (%)	
First breastfeeding time after birth				
0-1 hour	158 (80.2)	47 (75.8)	10 (58.8)	6.539/0.162[b]
1 hour later	25 (12.7)	10 (16.1)	6 (35.3)	
Not breastfeeding	14 (7.1)	5 (8.1)	1 (5.9)	
Baby's first oral food				
Colostrum	162 (82.2)	40 (64.5)	6 (35.3)	26.333/0.000[b]
Formula	25 (12.7)	14 (22.6)	7 (41.2)	
Sugar water	7 (3.6)	6 (9.7)	2 (11.8)	
Other[*]	3 (1.5)	2 (3.2)	2 (11.8)	

Table 4. Relationship between breastfeeding behaviours of the participants according to the profession in which breastfeeding education was received (n=276) (continued)

	Midwife (n=197)	Nurse (n=62)	Physician (n=17)	
	n (%)	n (%)	n (%)	Test value / p
The duration of exclusive breastfeeding				
0-2 month	12 (6.1)	4 (6.5)	1 (5.9)	
3-4 month	31 (15.7)	9 (14.5)	4 (23.5)	1.107/0.981[b]
5-6 month	131 (66.5)	43 (69.4)	10 (58.8)	
6 months over	23 (11.7)	6 (9.7)	2 (11.8)	
Using a bottle				
Yes	74 (37.6)	22 (35.5)	6 (35.3)	0.109/0.947[b]
No	123 (62.4)	40 (64.5)	11 (64.7)	
Using a pacifier				
Yes	46 (23.4)	13 (21.0)	3 (17.6)	0.395/0.821[b]
No	151 (76.6)	49 (79.0)	14 (82.4)	
Babies should be breastfed up to				
0-12 month	10 (5.1)	4 (6.6)	3 (18.8)	6.932/0.140[b]
12-24 month	167 (85.6)	55 (90.2)	12 (75.5)	
24 months over	18 (9.2)	2 (3.3)	1 (6.3)	
Thought to breastfeed babies up to				
0-12 month	23 (11.7)	11 (17.7)	2 (11.8)	5,427/0,246[b]
12-24 month	161 (81.7)	51 (82.3)	14 (82.4)	
24 months over	13 (6.6)	0 (0.0)	1 (5.9)	
Continuing to breastfeed when the baby was sick				
Yes	173 (87.8)	52 (83.9)	13 (76.5)	2.072/0.355[b]
No	24 (12.2)	10 (16.1)	4 (23.5)	
Knowing milking techniques and storage conditions				
Yes	149 (75.6)	40 (64.5)	11 (64.7)	3.468/0.177[b]
No	48 (24.4)	22 (35.5)	6 (35.3)	
Washing hands before breastfeeding				
Yes	181 (91.9)	58 (93.5)	16 (94.1)	0.264/0.876[b]
No	16 (8.1)	4 (6.5)	1 (5.9)	

[a] Kruskal Wallis Test, [b] Chi-Square test, p<0.05

4. Discussion

In our study, we examined the breastfeeding behaviour of mothers who applied in state hospitals that are "Baby Friendly Hospitals and the factors affecting these behaviours. We determined that about two-thirds of the respondents who responded to the questionnaire were only breastfeeding their babies for the first 5-6 months. In a study examining the breastfeeding behaviour of 11 European countries, the researchers found that the rate of breastfeeding after birth was high in all countries, but the breastfeeding rates with only human milk in the first six months decreased gradually over time and among the ratio of 13% (Denmark) and 39% (Netherlands) of 6-month babies were reported that only breastfed (22). Research results show that there is a need for public policies that encourage increasing breastfeeding rates of babies, ensure that women's living and working conditions are compatible with breastfeeding, and midwives who care directly with mothers should increase their efforts to encourage breastfeeding (23).

Initiation of breastfeeding, especially in the first hour after birth, prevents neonatal infections, reduces the risk of neonatal death because of sepsis, pneumonia, diarrhea, and hypothermia, and facilitates continuous breastfeeding (24). However, early initiation of breastfeeding stimulates human milk production and reduces the risk of postpartum maternal haemorrhage (25). In our study, approximately three-quarters of the newborns were breastfed within 0-1 hour after birth. This breastfeeding rate is considered good according to the classification of WHO [weak (0-29%), medium (30-49%), good (50-89%), and very good (90-100%)] (26). According to the results of the study conducted in Turkey, rate of initiating breastfeeding within 1 hour after birth varies between 70.8-76.0% (27,28). Although our study results are compatible with the data of the studies conducted in Turkey, there are differences in the results of the studies conducted in other countries. In a study conducted with 244.569 mothers in 24 countries, researchers reported that only 57.6% of mothers began breastfeeding their babies in the first hour after birth (25). It is known that the mode of delivery affects the time of breastfeeding in the newborn after birth (29). In our study, the rate of breastfeeding of their babies within the first hour after birth was higher than mothers who gave birth by caesarean section in our study, but this difference was not statistically significant. There may be several reasons why the first food given orally to one-third of the infants in our study was food

other than human milk. Almost all childbirths in Turkey take place in the hospital. This may cause the mother and baby to be separated for routine care immediately after birth, the high rate of cultural practices and caesarean delivery and the prolongation of postpartum care of the mother. These reasons may delay the baby's breastfeeding. Nevertheless, the reasons behind the retardation of starting breastfeeding should be investigated. Mothers need adequate and effective education, support, guidance, and encouragement to start breastfeeding early (30,31).

Early initiation of supplementary foods may cause human milk to decrease gradually and depriving of this natural nutrient that protects the baby from infections (32). In our study, approximately two-thirds of mothers started giving additional food to their babies before six months. The reason for this is mostly because the mother thought that her milk was not enough. In addition, about half of the mothers stated that they had already given formula to their babies. It is still common among mothers in the concern of milk insufficiency, and this is thought to be due to their insufficient knowledge of appropriate techniques to increase human milk. It is known that it is possible to continue breastfeeding with effective breastfeeding counselling given face to face and at least six times both in the prenatal and postnatal period (33,34). Mothers should be informed about the importance of frequent breastfeeding with the right technique to stimulate milk production.

In this context, the duration of breastfeeding of babies at one time is sufficient in our study. It has also been shown that breastfeeding intention affects the duration of breastfeeding (35). In our study, most of the mothers knew babies should be breastfed up to 13-24 months. Researchers reported that 73.9% of the participants thought to breastfeed their baby up to 24 months in similar study in Turkey (36). It is thought that mothers who do not know that the baby should be breastfed with supplementary foods until the age of two tend to stop breastfeeding earlier than recommended. Accordingly, it is pleasing that most of the mothers considered breastfeeding the baby for up to 13-24 months in our study.

In our study, it was found that the average score that mothers obtained from the LATCH assessment tool, which we evaluate breastfeeding success, was high. In other studies, while using the same scale in examining the breastfeeding success of mothers in Turkey, it is seen that the mean scores obtained from the scale vary between 6.64 - 8.9 (37,38). The high LATCH scores of the mothers may be related to the hospital where the study was conducted was a baby-friendly hospital and the support given to mothers in breastfeeding in our study.

Study results show that breastfeeding education in the prenatal period and breastfeeding support in the postnatal period affect the duration of breastfeeding and have positive effects on breastfeeding success (39). In our study, we found that nearly half of the mothers had already received breastfeeding counselling and education. Additionally, the breastfeeding success and LATCH scores of the mothers who received breastfeeding education were higher in our study similar to the results of other studies, and this difference was statistically significant (40,41). In Turkey, breastfeeding counselling is in the scope of insurance, and it is given to mothers in the pre-natal and post-natal breastfeeding polyclinics as free of charge. Despite this, studies are needed to investigate the reason for the low rate of breastfeeding counselling among women.

In our study, mothers who received breastfeeding counselling and education from a midwife had higher rates of breastfeeding their babies in the first hour, the rates of being colostrum incepted by the baby as a first food, and average LATCH total score. It is controversial which type of healthcare professional is more effective in providing breastfeeding counselling and education. There are no topics related to breastfeeding education and counselling in the education programs of physicians and nurses, therefore they cannot be sufficient in breastfeeding management (42). In addition, study results show that medical faculty students are taught to feed babies with formula more than breastfeeding (43). As a result of our study, 68.3% of mothers who gave formula to their baby before, it was determined that their doctor recommended the formula. In the previous study results, it was reported that women who were given breastfeeding counselling by midwives, continued breastfeeding, elimination of problems related to breastfeeding, breastfeeding success, and only breastfeeding rates in the first six months compared to breastfeeding counselling provided by other health professionals (44). Among midwifery care models, midwives provide breastfeeding education in the prenatal period and breastfeeding counselling in the postpartum period. However, it is thought that breastfeeding education and counselling given by midwives are more effective on breastfeeding success of mothers, as they are easily accessible for women, and they communicate better with them.

4.1. Limitations

There are some limitations that must be considered properly to interpret the results of our study. We cannot generalize our study results to the whole of Turkey, since the research sample consists of only mothers who applied to a hospital. However, the data were collected by the participants' self-report method and was limited to the reports of the participants and a specialist could not be

evaluated. Therefore, the collected data may be different from the views of the experts. The time, duration and content of the breastfeeding counselling and education received were not questioned, and the non-standardization of the education is another limitation. On the other hand, this study has some strengths. Personal interviews provided the advantage of obtaining a high response rate, a level of accuracy in the selection of respondents, and avoiding missing data. Effective interventions should be considered to raise the breastfeeding behaviour of mothers, such as developing health policies and ensuring that each pregnant woman receives breastfeeding education by a midwife for the ahead studies.

5. Conclusion

It is observed that the rate of mothers to start breastfeeding their babies after birth is high, but the rates of only breastfeeding in the first 6 months are low. Education and counselling on breast milk and breastfeeding provided by midwives is an important factor in raising breastfeeding rates and the duration of breastfeeding to the desired levels. For this reason, strategies that will enable midwives to take a more active role in providing education and counselling about breastfeeding to mothers during pregnancy and postpartum period should be developed and policies in this direction should be increased.

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Authorship Contribution:

SÖ: Conceptualisation, literature search, supervised the study selection, quality of assessment, data analysis, and manuscript preparation.

FDS: Study selection, quality assessment, data extraction, manuscript preparation, reviewed manuscript.

HCK: Study selection, quality assessment, data extraction, manuscript preparation.

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