

Factors Determining the Duration of Breastfeeding Termination Among Mothers: The Case of Southeast Anatolia Region

Sidar GÜL¹
Ayşegül KILIÇLI²
Mukaddes AKTOPRAK^{1,3}



¹Department of Nursing, Siirt University, Faculty of Health Sciences, Siirt, Türkiye

²Department of Nursing, Muş Alparslan University, Faculty of Health Sciences, Muş, Türkiye

³Department of Obstetrics and Gynecology Nursing, Institute of Health Sciences, Atatürk University, Türkiye



ABSTRACT

Objective: The study aimed to determine mothers' knowledge of, and practices relating to, the termination of breastfeeding, as well as the factors affecting early termination of breastfeeding.

Methods: A descriptive and cross-sectional study was conducted. The study population included mothers who applied to Siirt Training and Research Hospital. The data were obtained from 300 participants who visited the pediatric clinic between January and March 2024 and were selected via purposive sampling. The data were collected using a descriptive information form developed by researchers in line with the literature and through face-to-face interviews.

Results: The participants' mean age was 28.91±4.98 years, and 42.3% had completed high school or higher education. 81.7% of participants wanted their last pregnancy, 53.7% of them breastfeed within the first 60 minutes after birth, and 33.0% of them received breastfeeding education. 80.7% of participants planned to breastfeed for less than 24 months and wanted to termination of breastfeeding by reducing it and using bitter or unpleasant odors on the breast. 19.0% of participants received education on termination of breastfeeding; the people who provided education were health professionals and family members. The planned breastfeeding duration of shorter than 24 months was 2.23 times higher in those who mostly spoke Kurdish or Arabic in the family, 2.88 times higher in those whose baby was 6-12 months old, and 2.24 times higher in those without breastfeeding education. These significant predictors explained 15.9% of the total variance ($P<.05$).

Conclusion: This study revealed that different ethnic origins, the baby being aged 6-12 months, and not receiving breastfeeding education are important determinants in the planned breastfeeding period being shorter than 24 months at the time of breastfeeding termination.

Keywords: Breastfeeding, mothers, breastfeeding cessation

INTRODUCTION

Breast milk, which alone perfectly meets the physiological and psychosocial needs of the baby during the first six months after birth, plays a vital role in establishing the bond between mother and baby. The United Nations Children's Fund (UNICEF) recommends that infants be exclusively breastfed for the first six months, followed by continued breastfeeding up to 2 years of age alongside appropriate complementary foods.^{1,2} The benefits of breastfeeding are not only limited to the feeding process but also positively affect the baby's health at later ages. However, despite all the known benefits, breastfeeding rates are not at the desired level globally. In the report prepared by UNICEF on the nutritional status of children in the world, it was determined that the rate of initiation of breastfeeding within the first hour after birth was 46.0%, and the global breastfeeding rate for infants under six months of age was 48.0%.³ According to the Global Breastfeeding Scorecard 2023, only 44% of newborns globally are breastfed within the first hour of birth, and just 48% of infants under six months are exclusively breastfed.⁴ Interestingly, exclusive breastfeeding rates are often higher in low- and middle-income countries than in high-income countries. The rate of exclusive breastfeeding is 26% in North America, 43.0% in Latin America, 45.0% in Africa, %46 in Sub-saharan Africa, and 51.0% in Asia.³⁻⁶ In Turkey, the rate of exclusive breastfeeding for children under six months of age is 40.7%, according to the Turkish Demographic and Health Survey data.

In addition, the median duration of breastfeeding in Turkey is 16.7 months. 66.0% of children are breastfed until 12 months and 34.0% until 24 months.⁷ In the world and our

This study was presented as an oral presentation at the 3rd International and 4th National Women's Health Nursing Congress in Istanbul.

Received 12.07.2024
Revision Requested 11.07.2025
Last Revision 03.03.2026
Accepted 05.03.2026
Publication Date 24.03.2026

Corresponding author: Sidar GÜL

E-mail: sidaraytekin@gmail.com

Cite this article: Gül S, Kılıçlı A, Aktoprak M. Factors Determining the Duration of Breastfeeding Termination Among Mothers: The Case of Southeast Anatolia Region. *J Nursology*. 2026;29(1):71-80. doi: 10.17049/jnursology.1515041



Content of this journal is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

country, it is emphasized that the rate of mothers feeding their babies with breast milk is not at the desired level, and therefore, the importance of supporting breastfeeding under all conditions is emphasized.^{8,9} In light of the data obtained, the promotion of breastfeeding is among the main goals for public health all over the world.⁵

The breastfeeding process includes the stages of initiation, continuation, and termination.¹⁰ Studies have shown that the mother's attitude toward breastfeeding after birth and her opinion about the benefits of breastfeeding on the baby's health affect the decision to breastfeed.^{5,11} In addition, many factors such as maternal age, marital status, education, race, economic status, cultural factors, number of births, number of children at home, or the presence of social support have also been shown to affect women's decision to breastfeed. In addition to these factors, negative attitudes towards breastfeeding have also been found to prevent the initiation or continuation of breastfeeding.¹¹⁻¹³

Maintaining breastfeeding is one of the most important decisions a mother can make for her baby's health in the early years of life. In this process, it is equally essential to terminate breastfeeding at a time and in a manner that is appropriate for both the mother and the child. For most mothers, deciding when and how to stop breastfeeding is one of the most emotionally and physically challenging parts of the process.⁹ Mothers may use different approaches to terminate breastfeeding, primarily either gradual weaning (reducing the frequency of breastfeeding over time) or abrupt weaning (suddenly stopping breastfeeding). Health professionals generally recommend gradual weaning as the most appropriate method, as it allows the child to adapt to the change while reducing physical discomfort for the mother. However, in many regions and cultural contexts, traditional and sometimes inappropriate methods of weaning persist. These include pushing the baby away, introducing pacifiers or bottles without guidance, applying substances like bitter/pepper to the nipple, and attaching items such as broom handles, cotton, or adhesive tape to the breast to deter the child.^{14,15} Such abrupt or coercive methods can have negative consequences for both mother and infant, including emotional distress, feelings of punishment or rejection in the child, and potential eating disorders.¹² Therefore, it is important that mothers receive guidance on developmentally appropriate and emotionally supportive termination of breastfeeding strategies. Despite the widespread use of such traditional practices, the underlying reasons why some mothers choose inappropriate or abrupt methods have not been fully clarified in the literature. Understanding these motivations is essential for the development of more effective,

culturally sensitive, and mother-centered breastfeeding education and support programs.

AIM

The study aimed to determine mothers' knowledge of, and practices relating to, the termination of breastfeeding, as well as the factors affecting early termination of breastfeeding.

Research questions/hypothesis

- What is the planned duration of breastfeeding among mothers?
- What are the practices that mothers plan to use when terminating breastfeeding?
- What are the demographic, obstetric, and breastfeeding process determinants associated with the planned duration of breastfeeding?
- What factors affect the planned duration of breastfeeding if it is less than 24 months?

METHODS

Study Design

This study was a descriptive cross-sectional study.

Study Sample

The population of the study consisted of mothers who applied to the pediatric outpatient clinic between 15 January and 15 March 2024 in a training and research hospital located in the Southeastern Anatolia region of Siirt province and who met the inclusion criteria.

The sample size was calculated using G*Power 3.1.9.7 software. Based on the study by Özçoban et al.,¹² a logistic regression model was planned, and the sample size was calculated with an expected odds ratio of 2.3, alpha = 0.05, and a power of 95% ($1-\beta = 0.95$).¹⁶ A power level greater than the conventional 0.80 was preferred in this study to reduce the probability of Type II error and to ensure stronger statistical sensitivity, especially given the exploratory nature of the predictors involved. Similar approaches have been used in previous studies that involve behavioral or culturally influenced health decisions.¹⁷⁻¹⁹ As a result, the minimum required sample size was determined as 261 participants. Considering potential data loss due to incomplete responses or withdrawal (which is commonly anticipated at a rate of 10–20% in community-based studies), the sample size was increased by approximately 15%. Accordingly, 300 participants were recruited using a purposive sampling method.

Women who were at least 18 years of age, breastfeeding, had no communication problems, had no psychiatric illness, and agreed to participate were included in the study. Those who were not breastfeeding, breastfeeding

twins or more children and those who had any health problem that would affect the mother's/baby's nutrition were excluded from the study.

Data Collection Tool and Process

A data collection form developed by the researchers by taking into consideration the literature on breastfeeding.¹⁸⁻²¹ In this form, socio-demographic characteristics of the participants (age, education, family type, most frequently spoken language, etc.), characteristics related to the last pregnancy (gestational week at delivery, presence of any problem, sex of the baby, etc.), breastfeeding process (age of the breastfeed infant, duration of a typical breastfeeding session, perception of breast milk adequacy, etc.) and information concerning the termination of breastfeeding (when the mother thought of terminating breastfeeding, intended method for terminating breastfeeding, etc.). It consists of 32 questions in total. The data were collected by face-to-face interview method by the researchers. It took an average of 15 minutes to complete the data collection forms.

Statistical Analysis

Statistical Package for Social Sciences (SPSS) 22 (IBM, Armonk, NY, USA) was used to analyze the data. The normality of the data was checked by the Shapiro-Wilk test. Descriptive findings were presented as a number, percentage, mean, standard deviation, minimum (min), and maximum (max). The chi-square test was used to evaluate the difference between categorical variables. Further analyses were performed to control potential confounders. Logistic regression analysis was used as the dependent variable in the further analysis, and variables with a $P < .05$ determined in the chi-square test were included. The explanatory value of the model was evaluated using Nagelkerke R^2 . The results were evaluated at a 95% confidence interval, and statistical significance was taken as $P < .05$.

Ethical Considerations

The principles stated in the Declaration of Helsinki were complied with in this study. Ethical approval was obtained from Siirt University Non-Interventional Clinical Research Ethics Committee (Approval date: 08.12.2023, Number: 6001). Written permission was obtained from Siirt Provincial Health Directorate (Approval date: 09.01.2024, number: E-71987595-774.07- 233712727). The study's aims were clearly explained to the participants, and written consent was obtained.

RESULTS

It was determined that the mean age of the participants was 28.91 ± 4.98 (min:18, max:40), 42.3% of them had high

school and above, 77.7% were not employed, only 69.7% had social security, 77.0% lived in the city center, 76.0% had a nuclear family type, and 55.0% spoke Turkish as the most spoken language. The mean age at marriage of the participants was 22.16 ± 3.31 (min:15, max:33) years, the mean number of children was 2.54 ± 1.52 (min:1, max:8), and 57.0% of the husbands' education level was high school and above (Table 1).

Table 1. The Distribution of Participants' Sociodemographic Characteristics

Characteristics	n	%
Education status		
Illiterate	39	13.0
Literate	50	16.7
Primary school	84	28.0
High school and ↑	127	42.3
Employment status		
Yes	67	22.3
No	233	77.7
Social security status		
Yes	209	69.7
No	91	30.3
Place of residence		
Village	41	13.7
Town/District	28	9.3
City	231	77.0
Family type		
Nuclear	228	76.0
Extended	72	24.0
Language spoken		
Turkish	165	55.0
Kurdish	115	38.3
Arabic	20	6.7
Husband's education status		
Illiterate	21	7.0
Literate	50	16.7
Primary school	58	19.3
High school and ↑	171	57.0
Age (years) Mean±SD	28.91±4.98	
Age at marriage (years) Mean±SD	22.16±3.31	
Number of children Mean±SD	2.54±1.52	
SD, Standard Deviation		

It was determined that 81.7% of the participants wanted their last pregnancy, 76.3% of them applied to the health institution 4-6 times during their last pregnancy, 19.0% of them experienced any health problem during their last pregnancy, and the problems experienced were preeclampsia, hyperemesis gravidarum, and abortion risk. It was determined that the mean of the last birth week was 38.44 ± 1.40 (min:32, max:42), 58.0% of the participants had vaginal delivery, infant age was 9.02 ± 5.65 months (min: 1, max:22), 54.3% of the babies were female, 16.0% of the babies had any health problem after birth and these problems were frequently hyperbilirubinemia and meconium aspiration (Table 2).

Table 2. Distribution of Participants' Characteristics of Last Pregnancy and Information on the Breastfeeding Process

Characteristics	n	%
Desire of pregnancy		
Yes	245	81.7
No	55	18.3
Number of antenatal visits to health institutions		
Three and ↓	57	19.0
4-6 times	229	76.3
Seven and ↑	14	4.7
Health problems during pregnancy		
Yes	57	19.0
No	24	81.0
Type of delivery		
Vaginal	174	58.0
Cesarean section	126	42.0
Sex of the baby		
Female	163	54.3
Male	137	45.7
Health problems in the baby after birth		
Yes*	48	16.0
No	252	84.0
Time to initiation of breastfeeding after birth **		
First 60 minutes ago	161	53.7
60 minutes after birth	139	46.3
Problem with the first breastfeeding		
Yes	60	20.0
No	240	80.0
Average duration of breastfeeding session		
10 minutes less	25	8.3
15-20 minutes	117	39.0
20 minutes more	158	52.7
Positive attitude to pacifier/bottle		
Yes	245	81.66
No	55	18.34
Feeling tired during breastfeeding		
Yes	68	22.7
Occasionally	162	54.0
No	70	23.3
Perception of milk adequacy		
Yes	181	60.3
No	119	39.7
The status of breastfeeding education		
Yes	99	33.0
No	201	67.0
The planned duration of breastfeeding		
24 months ↓	242	80.7
24 months and ↑	58	19.3
Termination type of breastfeeding		
Reducing	166	55.3
By applying bitter or a foul odor	50	16.7
Getting used to the bottle	37	12.3
Suddenly interrupting	25	8.3
By closing the nipple	22	7.3
Receiving education on termination of breastfeeding		
Yes	57	19.0
No	243	81.0
Gestational age (week) Mean±SD	38.44±1.40	

*These health problems did not affect the initiation or continuation of breastfeeding.

**Classified as occurring within or after the first 60 minutes according to WHO/UNICEF criteria.

It was determined that 53.7% of the participants breastfed within 60 minutes after birth, and 20.0% had problems during the first breastfeeding. The problems experienced were frequent breast pain, milk not coming, and the baby not holding the breast. It was determined that 39.0% of the participants breastfed for 15-20 minutes at a time, 81.66% had a positive attitude towards using pacifiers/bottles, 22.7% experienced fatigue during breastfeeding, and 60.3% thought breast milk was sufficient. It was determined that 33.0% of the participants received education on breastfeeding, and the people who provided education were frequently health personnel and family members. It was determined that 80.7% of the participants planned to discontinue breastfeeding in less than 24 months, 55.3% planned to discontinue breastfeeding by reducing breastfeeding, 16.7% planned to discontinue breastfeeding by applying bitter or a foul odor to the breast, and 12.3% planned to discontinue breastfeeding by getting used to the bottle. It was determined that 19.0% of the participants received training on termination of breastfeeding, and the people who provided training were health personnel and family members (Table 2).

When the factors affecting the duration of breastfeeding planned by the participants were analyzed, it was found that those whose spouse or themselves were only literate ($P=.026$ and $P=.037$), who spoke Kurdish or Arabic in the family ($P=.037$), whose breastfed baby was between 6-12 months ($P=.035$), and who did not receive breastfeeding education planned to terminate breastfeeding in a shorter period than 24 months in a statistically significant way ($P=.048$) (Table 3).

The effects of the significant variables found to affect the planned duration of breastfeeding of the participants on the desire to discontinue breastfeeding in less than 24 months were analysed by logistic regression analysis. According to the results of the analyses, the intention to discontinue breastfeeding in less than 24 months was 2.23 times higher in those who spoke Kurdish or Arabic the most in the family ($P=.028$), 2.88 times higher in those whose baby was between 6-12 months ($P=.009$), and 2.24 times higher in those who did not receive breastfeeding education ($P=.017$). These variables were significant predictors explaining 15.9% of the total variance in planned breastfeeding duration of less than 24 months (Nagelkerke $R^2 = .159$, $P=.001$) (Table 4).

Table 3. Distribution of Factors Affecting the Duration of Breastfeeding Planned by the Participants

Variables		Planned Breastfeeding Duration		Test ^a	P
		24 months ↓ n (%)	24 months and ↑ n (%)		
Age (years)***	18-26	84 (80.0)	21 (20.0)	0.381	.827
	27-31	81(82.7)	17(17.3)		
	32 and ↑	77(79.4)	20(20.6)		
Education status	Illiterate	27 (69.2)	12 (30.8)	9.277	.026
	Literate	47(94.0)	3(6.0)		
	Primary School	68(81.0)	16(19.0)		
	High school and ↑	100(78.7)	27(21.3)		
Employment status	Yes	48(71.6)	19(28.4)	3.781 ^b	.052
	No	194(83.3)	39(16.7)		
Social security status	Yes	173(82.8)	36(17.2)	1.544 ^b	.214
	No	69(75.8)	22(24.2)		
Place of residence	Village	32(78)	9(22)	3.000	.223
	Town/District	26(92.9)	2(7.1)		
	City	184(79.7)	47(20.3)		
Family type	Nuclear	188(82.5)	40(17.5)	1.502 ^b	.220
	Extended	54(75.0)	18(25)		
Language spoken	Turkish	126(76.4)	39(23.6)	4.353	.037
	Kurdish / Arabic	116(85.9)	19(14.1)		
Age at marriage (years)***	15-20	87(78.4)	24(21.6)	1.741	.419
	21-23	80(85.1)	14(14.9)		
	24 and ↑	75(78.9)	20(21.1)		
Husband's education status	Illiterate	14(66.7)	7(33.3)	8.833	.032
	Literate	47(94.0)	3(6.0)		
	Primary School	45(77.6)	13(22.4)		
	High school and ↑	136(79.5)	35(20.5)		
Number of children	Alone 1	74(80.4)	18(19.6)	0.421	.810
	Between 2-3	114(82.0)	25(18.0)	0.082	.774
	Four and ↑	242(80.7)	58(19.3)		
Desire for pregnancy	Yes	196(80.0)	49(20.0)	0.183 ^b	.669
	No	242(80.7)	58(19.3)		
Number of antenatal visits to health institutions	Three and ↓	45(78.9)	12(21.1)	0.032 ^b	.858
	Four and ↑	197(81.1)	46(18.9)		
Health problems during pregnancy	Yes	43(75.4)	14(24.6)	0.854 ^b	.355
	No	199(81.9)	44(18.1)		
Type of delivery	Vaginal	141(81.0)	33(19.0)	**	.482
	Cesarean section	101(80.2)	25(19.8)		
Sex of the baby	Female	131(80.4)	32(19.6)	**	.503
	Male	111(81.0)	26(19.0)		
Health problems in the baby after birth	Yes	38(79.2)	10(20.8)	0.082	.774
	No	204(81.0)	48(19.0)		
Infant age (months)	0-6	92 (80.7)	22 (19.3)	6.680	.035
	6-12	105 (86.1)	17 (13.9)		
	12-24	45 (70.3)	19 (29.7)		
Time to initiation of breastfeeding after birth	First 60 minutes ago	129(80.1)	31(19.9)	0.012	.913 ^b
	60 minutes after birth	113(81.3)	26(18.7)		
Problem with the first breastfeeding	Yes	48(80.0)	12(20.0)	0.000	1.000 ^b
	No	194(80.8)	46(19.2)		
Average duration of breastfeeding session	Less than 20 minutes	119(83.8)	23(16.2)	1.700	.192
	20 minutes and ↑	123(77.8)	35(22.2)		
Positive attitude to pacifier/bottle	Yes	199(81.2)	46(18.8)	0.107 ^b	.743
	No	43(78.2)	12(21.8)		

Table 3. Continued

Variables		Planned Breastfeeding Duration		Test ^a	P
		24 months ↓ n (%)	24 months and ↑ n (%)		
Feeling tired during breastfeeding	Yes	50(73.5)	18(26.5)	3.999	.135
	Occasionally	137(84.6)	25(15.4)		
	No	55(78.6)	15(21.4)		
Perception of milk adequacy	Yes	151(83.4)	30(16.6)	1.803	.179
	No	91(76.5)	28(23.5)		
The status of breastfeeding education	Yes	73(73.7)	26(26.3)	3.910	.048
	No	169(84.1)	32(15.9)		
Received on education termination of breastfeeding	Yes	44(77.2)	13(22.8)	0.304 ^b	.581
	No	198(81.5)	45(18.5)		

*Row percentage; **Fisher exact test; ***Age categories were created in order to balance the percentage distribution between groups in the chi-square analysis. All participants are 18 years of age or older and meet the inclusion criteria for the study. ^aPearson chi-square test was used. ^bContinuity Correction test was used.

Table 4. Logistic Regression Model of Variables Predicting Participants' Planned Breastfeeding Duration of Less than 24 Months

Variables	¹ Planned duration of breastfeeding= 24 months ↓		
	Estimate β	P	OR (95% CI)
Education status			
Illiterate	-1.059	.095	0.347 (0.100-1.201)
Literate	0.884	.208	2.422 (0.611-9.594)
Primary school	-0.170	.704	0.843 (0.350-2.032)
High school and ↑	0 ^a		
Language spoken			
Turkish	0 ^a		
Kurdish / Arabic	0.806	.028	2.238 (1.091-4.594)
Husband's education status			
Illiterate	-0.002	.998	0.988 (0.245-4.067)
Literate	-0.951	.172	2.589 (0.662-10.128)
Primary school	-0.162	.733	0.850 (0.335-2.157)
High school and ↑	0 ^a		
Infant age (months)			
0-6	0.756	.054	2.130 (0.988-4.595)
6-12	1.059	.009	2.884 (1.307-6.364)
12-24	0 ^a		
Received education on Termination of breastfeeding			
Yes	0 ^a		
No	0.808	.017	2.244 (1.153-4.368)

¹Final Model -2 Log Likelihood = 263.195; χ^2 (df. 10) = 31.418. $P=.001$; Goodness of Fit. Pearson χ^2 (df. 8) = 2.154; $P=.976$; Link Function = Logit Nagelkerke $R^2 = .159$; Overall percentage = 81.0%; OR (95% CI); Odds Ratio with 95% Confidence Interval;

^aParameter is set to 0 because it is redundant.

DISCUSSION

Breastfeeding is an essential nutrient that contains the necessary resources for the physical and mental development of the baby. Early termination of this process negatively affects maternal and infant health. In this context, it is essential to prevent mothers from terminating breastfeeding in the early period, to make the decision of termination at the right time, and to ensure that the method preferred in the termination process does not have adverse effects on maternal and infant health.¹¹⁻¹³ This study aimed to determine mothers' knowledge of, and practices relating to, the termination of breastfeeding, as well as the factors affecting early termination of breastfeeding.

It was determined that 53.7% of the participants breastfed their baby within the first 60 minutes after birth, one out of every five participants experienced problems during the first breastfeeding, and the problems experienced were often pain in the breast, milk not coming and the baby not holding the breast. Although this rate is above the global average of 48% reported in UNICEF's 2023 Global Breastfeeding Scorecard,⁴ it is lower than the higher rates reported in some studies conducted in Turkey.^{6,20,21} Ahi et al.⁶ reported the rate of women starting breastfeeding within the first 60 minutes as 75.6%, and Yeşilçiçek Çalık et al.²⁰ reported it as 70.8%. Yeşilçiçek Çalık et al.²⁰ reported that 54.6% of mothers could not breastfeed their babies within the first half hour following birth because the baby did not suckle and 21.6% because their milk did not come. In support of our study results, Ünsal et al.²¹ reported that 23.2% of the mothers who could not breastfeed their babies could not breastfeed because the baby did not suckle, and 22.9% could not breastfeed because they had no milk. The rate found in our study is compatible with most similar studies conducted in Turkey, which reveals

that this problem continues.

In our study, the percentage of mothers with a planned breastfeeding duration of less than 24 months is quite high at 80.7%. Early termination of breastfeeding is not only an individual choice or a local health behavior, but also a public health issue of global importance.¹² In this context, continuing breastfeeding is critical not only in terms of individual health outcomes but also in terms of sustainable development goals (SDGs). In particular, in line with the United Nations SDGs 3 ("Healthy Individuals") and SDGs 5 ("Gender Equality"), it is necessary to increase women's access to breastfeeding processes. In line with the global breastfeeding targets of the World Health Organization (WHO) and UNICEF, the goal is to increase the rate of exclusive breastfeeding in the first six months to 50% by 2025.^{22,23} However, the findings of this study indicate that demographic, cultural, educational, and structural barriers to achieving these goals still exist.

In our study, the proportion of breastfeeding duration planned by both mothers and their spouses according to each education level was higher for breastfeeding duration shorter than 24 months than for breastfeeding duration longer than 24 months. In addition, the rate of mothers and their spouses who planned breastfeeding for less than 24 months was highest in those with literate education levels. Temesgen et al.,²⁴ reported that the educational status of the mother and father was associated with early termination of breastfeeding and that the probability of early discontinuation of breastfeeding was lower in parents who did not attend formal education and who attended primary education compared to those who attended secondary education and above. In a study conducted by Abada et al.,¹ in the Philippines, fathers with higher levels of education did not have enough time to encourage their mothers to breastfeed their children in the best way because they were engaged in jobs that required them to be away from their children. Recent studies conducted in Turkey have also shown that educational level affects breastfeeding duration. Duman and Gölbaşı,¹⁸ reported that educated mothers have higher self-efficacy regarding the breastfeeding process and that these mothers breastfeed for longer periods. Sarı et al.,¹⁹ in their study conducted in Istanbul and Van provinces, found that mothers with lower educational levels breastfeed for shorter periods. These findings support the results of the current study and reveal that education is one of the key determinants in the healthy implementation of the breastfeeding process.

In this study, it was found that mothers who spoke a language other than Turkish in the family had significantly

shorter planned breastfeeding duration, and speaking a different language in the family increased early termination of breastfeeding by 2.2 times. Previous research has demonstrated disparities in breastfeeding initiation and continuation across ethnic and linguistic groups. Akter and Rahman²⁵ reported that cultural mismatch in the region of residence was associated with early cessation. In the United States, Beauregard et al.²⁶ found significant racial differences in breastfeeding continuation, and McKinney et al.²⁷ showed that language preference influenced breastfeeding duration among Hispanic mothers. The WHO emphasizes that culturally and linguistically appropriate maternity services are essential to ensure equitable breastfeeding outcomes.²⁸ Therefore, interpreter-supported counseling, culturally tailored educational materials, and community-based breastfeeding support interventions may help mitigate language-related disparities. This finding may be explained by language-related barriers that limit access to accurate breastfeeding information and reduce effective communication with healthcare professionals. Language discordance can negatively affect mothers' understanding of breastfeeding techniques, management of common breastfeeding problems, and adherence to follow-up recommendations. In addition, limited health literacy and reduced exposure to nationally delivered public health messages may weaken breastfeeding self-efficacy and continuity.^{29,30}

This study found that the planned duration of breastfeeding was significantly shorter in mothers whose infant was between 6-12 months. Similarly, according to the WHO report, in a global systematic review, it was reported that breastfeeding was terminated early in many countries and this increased in direct proportion to the age of the baby.⁸ According to the Turkey Demographic and Health Survey data in our country, the rate of breastfeeding decreases, and the rate of early termination of breastfeeding increases with increasing infant age in infants under two years of age.⁷ This shows that the planned duration of breastfeeding decreases with increasing infant age.

In this study, 81.0% of the mothers did not receive breastfeeding termination training. In addition, it was determined that the planned duration of breastfeeding was significantly shorter in mothers who did not receive breastfeeding termination training, and not receiving breastfeeding training increased early termination of breastfeeding by 2.2 times. This shows that not receiving breastfeeding termination training causes early termination of breastfeeding. Altunel and Özyaydın³¹ reported that 70.5% of the mothers received information and training on termination of breastfeeding. It was

reported that the sources of information and training were mostly mother/ mother-in-law (38.1%), computer/internet (29.5%), and health workers (26.1%). Alsaç and Polat⁹ reported that 62.3% of mothers did not receive sufficient information about the termination of breastfeeding, effective breastfeeding, and breastmilk and that most (65.5%) coped with the termination of breastfeeding alone. The findings suggest that education programs on the termination of breastfeeding should be included more in health institutions than breast milk and breastfeeding education.

In our study, it was determined that approximately half of the mothers (44.7%) planned to use traditional methods to terminate breastfeeding (16.7% by applying bitter or a foul odor, 8.3% by cutting off suddenly, 7.0% by closing the nipple), thus they planned to prefer traditional methods that make it difficult for the baby to access the breast. In this situation, the sudden termination of breastfeeding, which is an essential bond between the mother and the baby, at a time when the baby/child is not physically, mentally, and emotionally ready, causes the child to feel that he/she is being punished, to withdraw, to show aggressive and angry behaviors. Depending on these changes observed in the child, various problems such as feelings of guilt and inadequacy, breast pain, and mastitis occur in mothers.^{9,10} From a mother–infant health perspective, breastfeeding should be terminated gradually and naturally. Supporting mothers through this transition requires a multidisciplinary, collaborative care approach. Nurses and midwives play a pivotal role in providing evidence-based counselling, emotional support, and individualised guidance throughout the breastfeeding process.^{6,18,32} When the studies in the literature were examined, it was reported that mothers used traditional methods to terminate breastfeeding at different rates, between 16.3% and 71.2%.^{9,14,31,33,34} Altunel and Özeydin²⁸ used traditional methods such as putting a broom handle on the breast, wrapping the breast with mint, applying cotton wool and bandages, and applying coffee, nail polish, and clay on the breast. Similar to our study, it was determined that 25.2% of mothers in one study and 44.4% of mothers in another study used supplementary feeding with a bottle the most among traditional methods.⁷ In the studies, it was observed that mothers sometimes used similar and sometimes different practices to terminate breastfeeding. It is valuable to support and guide mothers correctly in terminating breastfeeding against the possibility that these traditional methods may cause conditions that may be unfavorable for infant and maternal health (allergy, fear in the child, crying crises, etc.).

Limitations of Study

The current study had several limitations. Firstly, since the sample population consisted only of mothers who visited a hospital in the Southeastern Anatolia Region, the results cannot be generalized to the general population of Turkey. Secondly, since the data was based on participants' own statements, biases such as recall and social desirability bias may have been introduced. In addition, the socio-cultural dynamics influencing breastfeeding decisions were addressed only to a limited extent with quantitative data, and no in-depth analysis was performed in these areas.

At the conclusion of the study, factors such as diverse ethnic backgrounds, infants aged 6 to 12 months, and lack of breastfeeding education were significant determinants of a planned duration of breastfeeding of less than 24 months at the time of breastfeeding termination. According to results of the study; it can be recommended that health professionals should provide training to breastfeeding mothers, especially to mothers of different ethnicities with babies between 6-12 months of age and who have never received breastfeeding training before, to effectively terminate breastfeeding after 24 months of the baby's age when the mother and the baby are ready to terminate breastfeeding, to identify and prevent traditional practices that are harmful to maternal and infant health among breastfeeding termination practices, and to provide the proper practices for terminating breastfeeding at the right time and by health professionals.

Ethics Committee Approval: Ethical approval for this study was obtained from Siirt University Local Ethics Committee (Date: December 8, 2023; Approval No: 6001).

Informed Consent: The study's aims were clearly explained to the participants, and their verbal and written consent was obtained.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - SG, AK, MA; Design- SG, AK; Supervision- SG, AK; Resources- SG, AK, MA; Data Collection and/or Processing- SG, MA; Analysis and/or Interpretation- SG, AK; Literature Search- SG, AK, MA; Writing Manuscript- SG, AK, MA; Critical Review- SG, AK; Other- SG, AK, MA

Conflict of Interest: The authors have no conflicts of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

Use of Artificial Intelligence: No artificial intelligence–assisted tools or applications were used in the preparation, analysis, writing, or editing of this study.

REFERENCES

1. Abada TS, Trovato F, Lalu N. Determinants of breastfeeding in the Philippines: a survival analysis. *Soc Sci Med*. 2001;52(1):71-81. [https://doi.org/10.1016/S0277-9536\(00\)00123-4](https://doi.org/10.1016/S0277-9536(00)00123-4)
2. The United Nations Children's Fund (UNICEF). From the first hour of life: making the case for improved infant and young

- child feeding everywhere. Accessed January 23, 2024. <https://digitallibrary.un.org/record/4016712?ln=en%3Fln%3Den&v=pdf>
3. The United Nations Children's Fund (UNICEF). Breastfeeding. Accessed July 23, 2025. <https://data.unicef.org/topic/nutrition/breastfeeding/>
 4. The United Nations Children's Fund (UNICEF). Global breastfeeding scorecard 2023. Accessed July 23, 2025. <https://www.unicef.org/documents/global-breastfeeding-scorecard-2023>
 5. Canicali Primo C, de Oliveira Nunes B, de Fátima Almeida Lima E, Marabotti Costa Leite F, Barros de Pontes M, Gomes Brandão MA. What factors influence women's decision to breastfeed? *Invest Educ Enferm*. 2016;34(1):198-210. <https://doi.org/10.17533/udea.iee.v34n1a22>
 6. Ahi S, Borlu A, Balci E, Günay O. Mothers' breastfeeding initiation in the first hour after birth and related factors at a baby friendly hospital. *Ahi Evran Medical Journal*. 2019;3(2):41-47. <https://dergipark.org.tr/en/pub/aemj/article/529269>
 7. Hacettepe University, Institute of Population Studies 2018. 2018 Turkey demographic and health survey. Accessed January 5, 2024. https://hips.hacettepe.edu.tr/tr/nufus_ve_saglik_arastirmalari_serisi-59
 8. World Health Organization (WHO). The optimal duration of exclusive breastfeeding: a systematic review. Accessed February 12, 2024. https://iris.who.int/bitstream/handle/10665/67208/WHO_NHD_01.08.pdf
 9. Alsaç SY, Polat S. Knowledge and attitudes related to the finalization of mothers breastfeeding. *FNJN*. 2018;26(1):11-20. <https://doi.org/10.26650/FNJN.387152>
 10. Dettwyler KA. When to wean: biological versus cultural perspectives. *Clin Obstet Gynecol*. 2004;47(3):712-723. <https://doi.org/10.1097/01.grf.0000137217.97573.01>
 11. Güleröglü FT, Uludağ E, Çimke S. Determining the Emotions and Thoughts of Mothers During the Process of Weaning the Babies: A Qualitative Study. *J Ankara Univ Fac Med*. 2023;76(3):180-188. <https://dergipark.org.tr/en/pub/autfm/article/1709047>
 12. Özçoban FA, Karaman ÖE, Çevik E. Breastfeeding experiences of Turkish mothers; exclusive breastfeeding in first six months, continuing two years and using traditional methods for weaning. *Balıkesir Sağlık Bil Derg*. 2021;10(3):356-366. <https://doi.org/10.53424/balikesirsbd.1004258>
 13. Gupta S, Pajai S, Pawade AA. Benefits of breastfeeding to the child and psychological health of the postpartum mother. *Journal of SAFOG*. 2023;15(2):226-230. <https://doi.org/10.5005/jp-journals-10006-2217>
 14. Dinç A, Dombaz İ, Dinç D. Traditional practices related to breast milk and breastfeeding of mothers with babies of 6-18 months. *Balıkesir Health Sciences Journal*. 2015;4(3):125-130. <https://dergipark.org.tr/en/pub/balikesirsbd/article/452338>
 15. Yıldız İ, Gölbaşı Z. Assessment of mothers' knowledge and practices about traditional breastfeeding termination methods in Sivas. *HUHEMFAD*. 2019;6(1):20-27. <https://doi.org/10.31125/hunhemsire.544113>
 16. Faul F, Erdfelder E, Lang AG, Buchner A. G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behav Res Methods*. 2007;39(2):175-191. <https://doi.org/10.3758/BF03193146>
 17. Bujang MA, Adnan TH. Requirements for minimum sample size for sensitivity and specificity analysis. *J Clin Diag Res*. 2016;10(10):YE01-06. <https://doi.org/10.7860/JCDR/2016/18129.8744>
 18. Duman FN, Gölbaşı Z. Investigation of the effect of breastfeeding education on mothers' breastfeeding self-efficacy level in Turkey. *TFMPC*. 2022;16(1):140-150. <https://doi.org/10.21763/tjfmpe.977380>
 19. Sarı E, Tandoğan Ö, Güngör Satılmış İ, Yılmaz N. Traditional practices of mothers related to breastfeeding: Istanbul and Van sample. *E-Journal of Dokuz Eylul University Nursing Faculty*. 2023;16(2):141-155. <https://doi.org/10.46483/deuhfed.936295>
 20. Yeşilççek Çalık K, Çetin FC, Erkaya R. Annelerin emzirme konusunda uygulamaları ve etkileyen faktörler. *GÜSBD*. 2017;6(3):80-91. <https://izlik.org/JA97DD82CU>
 21. Ünsal H, Atılhan F, Özkan H, Targan Ş, Hassoy H. The tendency to breastfeed in a specific population and influential factors. *Çocuk Sağlığı ve Hastalıkları Dergisi*. 2005;48(3):226-233. <https://cshd.org.tr/article/view/532>
 22. United Nations (UN). (2015). Transforming our world: the 2030 agenda for sustainable development. Accessed July 28, 2025. <https://sdgs.un.org/goals>
 23. World Health Organizations (WHO) & United Nations Children's Fund (UNICEF). (2003). Global strategy for infant and young child feeding. Accessed July 28, 2025. <https://www.who.int/publications/i/item/9241562218>
 24. Temesgen K, Andarge, E., Fikadu, T., Bekele, M., Chisha, Y., Esubalew, H, et al. Early cessation of breastfeeding and the associated factors among mothers with children aged 2 to 3 years in rural Southern Ethiopia: a community-based cross-sectional study. *BMC Nutr*. 2023;9(1):22-30. <https://doi.org/10.1186/s40795-023-00681-5>
 25. Akter S, Rahman M. Duration of breastfeeding and its correlates in Bangladesh. *J Health Popul Nutr*. 2010;28(6):595-601. <https://doi.org/10.3329/jhpn.v28i6.6608>
 26. Beauregard JL, Hamner HC, Chen JC, Avila-Rodriguez W, Elam-Evans LD, Perrine CG. Racial disparities in breastfeeding initiation and duration among U.S. infants born in 2015. Accessed May 10, 2024. https://www.cdc.gov/mmwr/volumes/68/wr/mm6834a3.htm?s_cid=mm6834a3_w
 27. McKinney CO, Hahn-Holbrook J, Chase-Lansdale PL, et al. Racial and ethnic differences in breastfeeding. *Pediatrics*. 2016;138(2):e20152388. <https://doi.org/10.1542/peds.2015-2388>
 28. World Health Organization (WHO). (2017). Guideline: protecting, promoting and supporting breastfeeding in

- facilities providing maternity and newborn services. Accessed March 03, 2026. <https://www.who.int/publications/i/item/9789241550086>
29. Bigman G, Wilkinson AV, Perez A, Homedes N. Acculturation and breastfeeding among Hispanic American women: A systematic review. *Matern Child Health*. 2018;22(9):1260-1277. <https://doi.org/10.1007/s10995-018-2584-0>
 30. Jones KM, Power ML, Queenan JT, Schulkin J. Racial and ethnic disparities in breastfeeding. *Breastfeeding Med*. 2015;10(4):186-196. <https://doi.org/10.1089/bfm.2014.0152>
 31. Altunel Ü, Özaydın T. Methods of termination of breastfeeding and factors affecting their decisions to end breastfeeding. *STED*. 2022;31(4):271-280. <https://doi.org/10.17942/sted.969580>
 32. Sandall J, Soltani H, Gates S, Shennan A, Devane D. Midwife-led continuity models versus other models of care for childbearing women. *Cochrane Database of Systematic Reviews*. 2015;4. <https://doi.org/10.1002/14651858.CD004667.pub4>
 33. Gürarslan Baş N, Karatay G, Arikan D. Weaning practices of mothers in eastern Turkey. *J Pediatr*. 2018;94(5):498-503. <https://doi.org/10.1016/j.jpeds.2017.06.019>
 34. Abu Shosha GM. Weaning practices of Jordanian mothers: A qualitative study. *Health Soc Care Community*. 2022;30(2):612–621. <https://doi.org/10.1111/hsc.13165>