Breastfeeding Experiences of Midwife Mothers and Barriers to Their Breastfeeding / *Ebe Annelerin Emzirme Deneyimleri ve Emzirmelerinin Önündeki Engeller*

Elif DAĞLI[1], Fatma Nilüfer TOPKARA[2], Feyza AKTAŞ REYHAN[3]

[1]. Çukurova University, elifarik90@gmail.com.tr

[2]. Provincial Health Directorate, topkaranlfr@gmail.com.tr

[3]. Kütahya University of Health Sciences, fyzaktas@gmail.com.tr

Gönderim Tarihi | Received: 01.03.2022, Kabul Tarihi | Accepted: 27.04.2023, Yayım Tarihi | Date of Issue: 01.12.2023,

Atıf | Reference: "DAĞLI, E; TOPKARA, F.N; AKTAŞ REYHAN, F. (2023). Breastfeeding Experiences of Midwife Mothers and Barriers to Their Breastfeeding. Sağlık Akademisi Kastamonu (SAK), 8(3), s. 441-453. DOI: https://www.doi.org/ 10.25279/sak.1081411"

Abstract

Introduction: Midwives are at the forefront of the breastfeeding success of mothers, but the breastfeeding experiences of midwives who are mothers are unknown. Aim: This study was planned to determine the breastfeeding experiences of midwife mothers and the barriers to their breastfeeding. Materials and Methods: The study used a cross-sectional and descriptive design. A total of 177 midwives who had breastfeeding experience were included in the study. Results: The mean age of the midwife mothers was 39.71 ± 7.17 years and 53.1% had 2 children. The first breastfeeding time was 152.76 ± 471.97 minutes, the duration of breastfeeding was 14.88 ± 9.87 months, the duration of exclusive breastfeeding was 4.43 ± 1.65 months, and the duration of maternity leave was 6.16 ± 6.30 months. It was determined that 38.4% gave pre-lacteal feeding. It was found that some of the participants could not breastfeed because 34.5% of them did not have enough milk, 28.2% took short maternity leave, 26.6% had a busy work schedule, 24.9% had long working hours, 22.6% did not have a suitable place to express milk, 18.6% did not have enough time, and 10.7% were concerned about COVID-19 transmission. A statistically significant correlation was found between exclusive breastfeeding in the first 6 months and breastfeeding up to the age of 2 and pre-lacteal feeding, time of going back to work after maternity leave, psychological status, and sleep status ($p < 0.05$). Conclusion: Midwives who are mothers experience significant barriers to reaching their breastfeeding goals.

Keywords: Midwife; Mothers; Breastfeeding

Öz

Giriş: Annelerin emzirme başarısında ebeler ön plandadır, ancak anne olan ebelerin kendi emzirme deneyimleri bilinmemektedir. Amaç: Bu çalışma, ebe annelerin emzirme deneyimleri ve emzirmenin önündeki engelleri belirlemek amacıyla planlandı. Gereç ve Yöntemler: Kesitsel ve tanımlayıcı özelliktedir. Araştırmaya, çalışmaya katılmaya gönüllü ve çocuğunu emzirmiş 177 ebe dâhil edildi. Bulgular: Ebe annelerin yaş ortalaması 39.71±7.17 yıl ve %53.1'i 2 çocuğa sahip idi. İlk emzirme zamanı 152.76±471.97 dakika, emzirme süresi 14.88±9.87 ay, sadece anne sütü verme süresi 4.43±1.65 ay ve doğum sonu işe başlama zamanı ise 6.16±6.30 ay olduğu belirlendi. %38.4'ünün pre-lakteal verdiği tespit edildi. %34.5'inin sütünün yeterli olmadığı ve %28.2'sinin kısa doğum izni, %26.6'sının mesai yoğunluğu, %24.9'unun uzun çalışma saatleri, %22.6'sının süt sağmak için uygun yer olmaması, %18.6'sının zaman azlığı ve %10.7'sinin ise COVID-19 bulaştırma endişesi sebebiyle emziremediği belirlendi. İlk 6 ay sadece anne sütü verme durumu ve 2 yaşına kadar emzirme durumu ile pre-lakteal

verme, doğum sonu işe başlama zamanı, psikolojik durumu ve uyku durumu arasında istatistiksel olarak anlamlı ilişki tespit edildi ($p<0.05$). Sonuç: Anne olan ebeler kendi emzirme hedeflerine ulaşmada önemli engellerle karşılaşmaktadırlar.

Anahtar kelimeler: Ebe; Anneler; Emzirme

1. Introduction

The World Health Organization (WHO) recommends that all babies be fed exclusively with breast milk for the first 6 months starting from birth and that breastfeeding should continue until the baby is at least 2 years old (WHO, 2019). In order to achieve an optimum level of growth and development, the mother should feed her baby with her own milk (Alb et al., 2016; Darwent et al., 2016). It is known that breastfeeding has many health, economic, and psychological benefits. Some studies have shown that breast milk protects the baby from many diseases (pneumonia, tuberculosis, diarrhea, otitis media, measles, etc.) and reduces the risk of sudden infant death (Thepha et al., 2017; Riaz & Condon, 2019).

According to the results of the Turkey Demographic and Health Survey (2018), the average duration of breastfeeding is 16.7 months, the rate of breastfeeding in the first 6 months is 88%, breastfeeding until the age of 2 has declined to 39%, and the duration of exclusive breastfeeding is 1.8 months (TDHS, 2018). Despite the known health benefits for both mothers and babies, many women start breastfeeding, but few succeed to meet recommended targets for long (Sriraman & Kellams, 2016).

Achieving and maintaining breastfeeding is affected by many factors, such as age, education, income status, the health status of the mother and the baby, employment status of the mother, presence of several babies, family support, attitudes and values of family, and society, or thought that the body image will change (Pemo et al., 2020; Khaliq et al., 2017). Research on breastfeeding behavior shows that the mother's return to work is an important factor in stopping breastfeeding before the recommended time (Thussanasupap et al., 2016; Bai et al., 2015). In addition, mothers stop or cut back on breastfeeding because they do not have enough time and an appropriate place to express and store breast milk during working hours (Waite & Christakis, 2015). Female healthcare professionals who support breastfeeding also make up a high-risk group for undesirable early weaning from breastfeeding (Sattariet al., 2013). In a study with female physicians, Cantu et al. reported that women in general experienced at least one obstacle to successful breastfeeding. He stated that these barriers included lack of time, a suitable place to pump breast milk, unpredictable schedule, short maternity leave, and long working hours (Cantu et al., 2018). In another study of female physicians, the researchers reported that 64% intended to breastfeed for at least 12 months, 41% breastfed in the first 6 months and only 29% breastfed exclusively in the first 6 months (Sattari et al., 2010). The researchers in a study conducted with pediatric physician assistants found that a quarter of the participants could not meet their breastfeeding duration goals (Dixit et al.,2015).

Midwives have a unique place in supporting breast milk. Breastfeeding advice by midwives helps increase women's initiation and maintenance of breastfeeding effectively (Renfrew et al., 2014; HoopeBender et al., 2014; Vedam et al., 2018). The strongest indicator of breastfeeding advocacy is personal breastfeeding behaviors (Sattari et al., 2020). Therefore, it is important to examine the breastfeeding behaviors of midwives who are mothers since it may affect the breastfeeding behavior of women (Brodribb et al., 2008). Although there are many studies on breast milk and breastfeeding in the literature, there is no study addressing the practices of midwives in their own children. This study was planned to determine the breastfeeding experiences of midwife mothers and the barriers to their breastfeeding.

2. Materials and Methods

2.1. Research Design

The design of this study is descriptive and cross-sectional.

2.2. Research Place and Time

The research was carried out with midwives working in a state hospital and family health centers in a city in the central region of Turkey, between April 3 and May 20, 2021.

2.3. Population and Sample

The universe of the study consisted of all midwives (n=481) working in the hospital and family health centers of a province, and therefore, the sampling method was not used in the study. A total of 177 midwives who volunteered to participate in the study and met the inclusion criteria formed a sample. Inclusion criteria for the study: Midwives who became mothers 24 months after their last birth and who did not have any health problems affecting breastfeeding in their baby or themselves were included in the study. Before starting the study, pre-application was made to 15 midwives. 15 midwives belonging to the pre-application were not taken into the sample.

2.4. Data Collection Tools

The questionnaire, developed by the researchers by reviewing the literature and compiling, the participants were first asked questions about their age, education status, marital status, family type, whether they had children, level of income, and the time of returning to work after birth, first breastfeeding time after birth, pre-lacteal feeding after birth, feeding method for the first 6 months, the duration of breastfeeding, how long the breastfeeding was planned, reasons for not breastfeeding/being unable to breastfeed until the age of 2, and postpartum psychology and sleep status (Sattariet al., 2013; Waite, 2013; Pemo et al., 2020; Sattari et al., 2020; Yalçın et al., 2020).

2.5. Data Collection

The questionnaire was collected by the researchers through face-to-face interviews. It took about 10-15 minutes to fill out the questionnaires.

2.6. Ethical Considerations

The study was conducted under the ethical principles of the Declaration of Helsinki for medical research involving human subjects. Ethics committee approval of Çukurova University Faculty of Medicine Ethics Committee and institutional permission were obtained from the health directorate (Decision no: 110/38; date: 02 April 2021). The midwives were informed about the purpose of the study and their consent was obtained. Data were collected from midwives who agreed to participate in the study on a voluntary basis.

2.7. Statistical Analysis

Statistical analyses were conducted by using the IBM SPSS ver. 24.0 (IBM Corp. Released 2016. IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp.) software package. Descriptive statistics were given as mean, standard deviation, frequency, and percentage. Fisher-Exact, Yates continuity correction, and Pearson chi-square tests were used to examining the relationships between categorical variables. Bonferroni correction was applied for pairwise comparisons of variables with a

significant difference for three. Backward stepwise binary logistic regression analysis was used to analyze the factors preventing the midwives from exclusively breastfeeding their babies for the first 6 months and breastfeeding until the age of 2. P<0.05 was accepted as the level of significance.

3. Results

The mean age of the midwife mothers was 39.71±7.17 (years), and 73 (41.2%) of them were in the 35-44 age group. It was determined that 126 of the midwives (71.2%) had a bachelor/master's degree and that 94 (53.1%) had 2 children (Table 1).

Table 1. Distribution of Descriptive Characteristics of Midwives

(n=177)	n	%
Age groups (years)	39.71±7.17	
25-34	57	32.2
35-44	73	41.2
45-60	47	26.6
Level of education		
Health vocational high school	6	3.4
Associate degree	45	25.4
Bachelor/master	126	71.2
Level of income		
Income<expenses	58	32.8
Income=expenses	100	56.5
Income>expenses	19	10.7
Number of children		
1	53	29.9
2	94	53.1
≥3	30	17.0

Of the participants, 68 (38.4%) gave pre-lacteal food to their babies, 46 (67.6%) gave a formula, 102 (57.6%) had a first breastfeeding time of >30 minutes postpartum, 91 (51.4%) fed their babies exclusively with breast milk for the first 6 months, and 130 (73.4%) had wanted to breastfeed their babies until the age of 2. Also, it was found that 127 midwives (71.8%) could not maintain breastfeeding until the baby was 2 years old, 130 (73.4%) returned to work in ≤6 months postpartum, 70 (39.5%) had a moderate level of postpartum psychological status, 86 (48.6%) had a moderate level of postpartum sleep status, and that 171 (96.6%) gave breastfeeding support. The average breastfeeding time of the midwives was 14.88±9.87 (months), the duration of exclusive breastfeeding was 4.43±1.65 (months), and the duration of returning to work postpartum was 6.16±6.30 (months) (Table 2).

Table 2. Distribution of Breastfeeding Experiences and Some Characteristics of Midwives

(n=177)	n	%
Giving pre-lacteal food		
Yes	68	38.4
No	109	61.6
Type of pre-lacteal food (n=68)		
Formula	46	67.6
Zamzam water	14	20.6
Sugary water	8	11.8
First postpartum breastfeeding	152.76±471.97 (minutes)	
≤30 minutes	75	42.4
>30 minutes	102	57.6
Exclusive breastfeeding (months)	4.43±1.65 (months)	
Exclusive breastfeeding for the first 6 months		
Yes	91	51.4
No	86	48.6
Type of feeding for the first 6 months		
Only breast milk	91	51.4
Only formula	3	1.7

Breast milk and formula	81	45.8
Breast milk and supplementary food	2	1.1
The planned duration of breastfeeding		
Until the baby gives up	47	26.6
Until 2 years of age	130	73.4
Breastfeeding up to 2 years of age		
Yes	50	28.2
No	127	71.8
Time of returning to work postpartum		
≤6 months	130	73.4
>6 months	47	26.6
Postpartum psychological status		
Good	66	37.3
Moderate	70	39.5
Poor	41	23.2
Postpartum sleep status		
Good	30	16.9
Moderate	86	48.6
Poor	61	34.5

When the reasons for not breastfeeding/being unable to breastfeed were examined, it was determined that 61 midwives (34.5%) did not have enough milk, 50 (28.2%) had short maternity leave, 47 (26.6%) had busy working hours, 44 (24.9%) had long working hours, and that 40 (22.6%) did not have a suitable place for expressing milking.

A statistically significant relationship was found between midwives' exclusive breastfeeding in the first 6 months and pre-lacteal feeding, breastfeeding until the age of 2, time of returning to work after birth, psychological status, and sleep status ($\chi2=18.631$, $p<0.001$; $\chi2=33.372$, $p<0.001$; $\chi2=10.108$, $p=0.001$; $\chi2=26.476$, $p<0.001$; $\chi2=12.261$, $p=0.002$, respectively). The rates of exclusive breastfeeding for the first 6 months were found to be higher in midwives who did not give pre-lacteal food, breastfed until the baby was 2 years old, returned to work >6 months after birth, and had a good level of psychology and sleep postpartum. As a result of the pairwise comparison, a difference was found between the percentage of mothers with "Status of postpartum psychology" and "Status of postpartum sleep" at the "good" level and the percentage of mothers with "Status of postpartum psychology" and "Status of postpartum sleep" at the "poor" level. While the rate of mothers whose "Status of postpartum psychology" and "Status of postpartum sleep" levels were "good" among mothers who gave only breast milk in the first 6 months, was found to be high, the "poor" level rate was found to be higher in those who did not breastfeed exclusively in the first 6 months (Table 3).

Table 3. Examination of the Relationship Between Some and the Status of Exclusive Breastfeeding for the First 6 Months

Exclusive breastfeeding for the first 6 months	**Yes (n=91)**		**No (n=86)**		χ^2	**p**
Variable	**n**	**%**	**n**	**%**		
Age groups					0.191	0.909
25-34	28	30.8	29	33.7		
35-44	38	41.7	35	40.7		
45-60	25	27.5	22	25.6		
Level of education					3.147	0.210
Health vocational high school	2	2.2	4	4.7		
Associate degree	19	20.9	26	30.2		
Bachelor/master	70	76.9	56	65.1		
Number of children					1.911	0.385
1	28	30.8	25	29.1		
2	51	56.0	43	50.0		
≥3	12	13.2	18	20.9		

Giving pre-lacteal food					18.631	**<0.001**
Yes	21	23.1	47	54.7		
No	70	76.9	39	45.3		
Postpartum breastfeeding					1.096	0.295
≤30 minutes	42	46.2	33	38.4		
>30 minutes	49	53.8	53	61.6		
Breastfeeding until the age of 2					33.372	**<0.001**
Yes	43	47.3	7	8.1		
No	48	52.7	79	91.9		
Returning to work postpartum					10.108	**0.001**
≤6 months	57	62.6	73	84.9		
>6 months	34	37.4	13	15.1		
Status of postpartum psychology					26.476	**<0.001**
Good[(1)]	48	52.7	18	20.9		**[1>3,2]**
Moderate[(2)]	34	37.4	36	41.9		
Poor[(3)]	9	9.9	32	37.2		
Status of postpartum sleep					12.261	**0.002**
Good[(1)]	21	23.1	9	10.5		**[1>3,2]**
Moderate[(2)]	49	53.8	37	43.0		
Poor[(3)]	21	23.1	40	46.5		

Fisher-Exact or Pearson chi-square tests were used to compare qualitative variables.

A statistically significant relationship was found between midwives' breastfeeding status until the baby was 2 years old and education level, the status of giving pre-lacteal food, exclusive breastfeeding in the first 6 months, time of returning to work postpartum, and postpartum status of psychology and sleep ($\chi2=7.592$, $p=0.021$; $\chi2=9.992$, $p=0.002$; $\chi2=6.321$, $p<0.001$; $\chi2=9.665$, $p=0.002$; $\chi2=13.013$; $p=0.001$; $\chi2=10.682$; $p=0.005$, respectively). It was determined that the rate of breastfeeding up to the age of 2 years was higher in those who had a high education level, did not give pre-lacteal food, exclusively breastfed for the first 6 months, returned to work >6 months after the birth, and had good psychology and sleep status postpartum. As a result of the pairwise comparison, a difference was found between the percentage of mothers with bachelor/master education and the percentage of mothers with associate degree education. While the bachelor/master percentage is high at the education level of mothers who breastfeed until the age of 2, The rate of an associate degree at the education level of mothers who did not breastfeed until the age of 2 was found to be high. As a result of the paired comparison, a difference was found between the percentage of mothers with "Status of postpartum psychology" at the "good" level and the percentage of mothers with "Status of postpartum psychology" at the "poor" level. While the rate of "good" status of postpartum psychology levels of mothers who breastfeed up to the age of two was found to be high, the rate of "poor" level of mothers who did not breastfeed until the age of 2 was found to be higher. As a result of the pairwise comparison, a difference was found between the percentage of mothers with "Status of postpartum sleep" at the "moderate" level and the percentage of mothers with "Status of postpartum sleep" at the "poor" level. While the rate of "Status of postpartum sleep" levels of mothers who breastfed until the age of two was found to be "moderate", the rate of "poor" level of mothers who did not breastfeed until the age of 2 was found to be higher (Table 4).

Table 4. Examination of the Relationship Between Some Characteristics of Midwives and Breastfeeding Their Babies up to the Age of 2

Breastfeeding up to the age of 2 Variable	**Yes (n=50)**		**No (n=127)**		χ^2	**p**
	n	**%**	**n**	**%**		
Age groups						
25-34	19	38.0	38	29.9	2.482	0.289
35-44	16	32.0	57	44.9		
45-60	15	30.0	32	25.2		
Level of education						
Health vocational high school[(1)]	1	2.0	5	3.9	7.592	**0.021**
Associate degree[(2)]	6	12.0	39	30.7		**[1>2,3]**
Bachelor/master[(3)]	43	86.0	83	65.4		
Number of children					2.478	0.290

1	17	34.0	36	28.3		
2	28	56.0	66	52.0		
≥3	5	10.0	25	19.7		
Giving pre-lacteal food						
Yes	10	20.0	58	45.7	9.992	**0.002**
No	40	80.0	69	54.3		
Postpartum breastfeeding						
≤30 minutes	23	46.0	52	40.9	0.375	0.540
>30 minutes	27	54.0	75	59.1		
Exclusive breastfeeding for the first 6 months						
Yes	43	47.3	48	52.7	6.321	**<0.001**
No	7	8.1	79	91.9		
Returning to work postpartum						
≤6 months	28	56.0	102	80.3	9.665	**0.002**
>6 months	22	44.0	25	19.7		
Status of postpartum psychology						
Good[(1)]	26	52.0	40	31.5	13.013	**0.001**
Moderate[(2)]	21	42.0	49	38.6		**[1>3,2]**
Poor[(3)]	3	6.0	38	29.9		
Status of postpartum sleep						
Good[(1)]	10	20.0	20	15.7	10.682	**0.005**
Moderate[(2)]	32	64.0	54	42.5		**[1>2,3]**
Poor[(3)]	8	16.0	53	41.8		

Fisher-Exact, Yates continuity correction or Pearson chi-square tests were used to compare qualitative variables.

As a result of the backward stepwise logistic regression analysis, which was conducted by including all the parameters in the study in the model established regarding the status of the midwives for not breastfeeding their babies exclusively for the first 6 months, it was determined that midwives' pre-lacteal feeding, breastfeeding up to 2 years of age, postpartum psychological status, and time of returning to work postpartum were found to be significant variables on failing to breastfeed exclusively for the first 6 months ($p<0.05$). It was determined that the probability of exclusive breastfeeding for the first 6 months [(1-0.251)*100] was 74.9% less in those who were given pre-lacteal food than in those who were not (OR=0.251). Compared to those who breastfed until the baby was two years old, those who did not breastfeed until the age of 2 were found to be 86.7% less likely to exclusively breastfeed their babies for the first 6 months [(1-0.133)*100] (OR=0.133) (Table 5).

According to the model, midwives who returned to work ≤6 months postpartum were 3.119 times more likely to not breastfeed exclusively for the first 6 months compared to those who returned to work >6 postpartum (OR=3.119). Compared to midwives with good postpartum psychological status, those with moderate postpartum psychological status were 65.3% less likely to breastfeed their babies for the first 6 months [(1-0.347)*100] (OR=0.347). The probability of breastfeeding exclusively in the first 6 months was found to be 59% lower in those who did not have good postpartum sleep status compared to midwives with good postpartum sleep status (OR=0.168) (Table 5).

Table 5. Logistic Regression Model Established Based on Midwives' Failure to Feed Their Babies Exclusively with Breast Milk for the First 6 Months

	Categories	***β***	**p**	**OR**	**OR 95% CI**	
					Lower	**Upper**
Age groups[1]	35-44	-0.327	0.499	0.721	0.280	1.859
	45-60	-0.328	0.545	0.721	0.249	2.083
Level of education[2]	Associate degree	0.902	0.398	2.464	0.304	19.967
	Bachelor/master	1.095	0.275	2.989	0.419	21.335

Number of children[3]	2	0.085	0.854	1.089	0.440	2.692
	≥3	-0.631	0.316	0.532	0.155	1.829
Giving pre-lacteal food[4]	Yes	**-1.383**	**0.001**	**0.251**	**1.801**	**8.821**
First breastfeeding postpartum [5]	>30 minutes	0.119	0.759	1.127	0.527	2.409
Breastfeeding up to 2 years of age [6]	No	**-2.018**	**0.001**	**0.133**	**0.045**	**0.390**
Returning to work postpartum[7]	>6 months	**1.138**	**0.013**	**3.119**	**1.272**	**7.650**
Postpartum psychology [8]	Moderate	**-1.057**	**0.025**	**0.347**	**0.138**	**0.875**
	Poor	**-1.787**	**0.004**	**0.168**	**0.050**	**0.564**
Status of postpartum sleep [9]	Moderate	0.080	0.893	1.084	0.337	3.489
	Poor	-0.586	0.383	0.556	0.149	2.074
Giving breastfeeding support[10]	No	-2.085	0.100	0.124	0.010	1.494

Reference categories: [1]25-34, [2] Health vocational high school, [3]1, [4]No, [5]≤30 minutes, [6]yes,[7]≤6 months, [8]good, [9] good, [10]Yes

As a result of the Backward: LR logistic regression analysis, which was conducted by including all the parameters in the study in the model established regarding the status of the midwives for breastfeeding their babies until they were 2 years old, it was found that the midwives' age, income level, and status of exclusive breastfeeding for the first 6 months were significant variables on the breastfeeding status until the baby was 2 years old ($p<0.05$). According to the model, the midwives in the 35-44 age group were 66.9% [(1-0.331)*100] less likely to breastfeed until the baby was 2 than those who were in the 25-34 age group (OR=0.331). Compared to midwives who exclusively breastfed their babies for the first 6 months, those who did not exclusively breastfeed for the first 6 months were 85% less likely to breastfeed their babies until the age of 2 (OR=0.149) (Table 6).

Table 6. Logistic Regression Model Established Based on Midwives' Failure to Breastfeed Their Babies up to the Age of 2

	Categories	***β***	**p**	**OR**	**OR 95% CI**	
					Lower	**Upper**
Age groups[1]	35-44	**-1.106**	**0.049**	**0.331**	**0.110**	**0.995**
	45-60	-0.312	0.619	0.732	0.214	2.503
Level of education[2]	Associate degree	-0.266	0.852	0.767	0.047	12.519
	Bachelor/master	0.477	0.720	1.611	0.118	21.941
Number of children[3]	2	-0.227	0.657	0.797	0.292	2.175
	≥3	-0.343	0.649	0.710	0.162	3.101
Giving pre-lacteal food[4]	No	0.690	0.175	1.994	0.735	5.410
First breastfeeding postpartum [5]	>30 minutes	0.626	0.188	0.984	0.416	2.327
Exclusive breastfeeding for the first 6 months [6]	No	**-1.905**	**0.001**	**0.149**	**0.053**	**0.418**
Returning to work postpartum[7]	>6 months	0.626	0.188	1.870	0.736	4.750
Postpartum psychology [8]	Moderate	-0.261	0.597	0.770	0.292	2.029
	Poor	-1.204	0.156	0.300	0.057	1.581
Status of postpartum sleep [9]	Moderate	0.922	0.137	2.514	0.745	8.485
	Poor	-0.331	0.647	0.718	0.174	2.965
Giving breastfeeding support[10]	No	-	0.999	0.001	0.001	-

Reference categories: [1]25-34, [2] Health vocational high school, [3]1, [4]yes, [5]≤30 minutes, [6]Yes, [7]≤6 months, [8]good, [9]good, [10]yes

4. Discussion

Pre-lacteal feeding means giving the newborn any food except for breast milk (cow/goat milk, water, sweetened water, honey, tea, formula) before the first breastfeeding after birth (TDHS, 2018). Pre-lacteal feeding is a common cultural practice in the world and our country (Yalçın et al., 2020). Pre-lacteal food is given because some people think it cleans the throat/bowel, breast milk is considered insufficient, or the colostrum is unsuitable for the newborn to digest (Khanal et al., 2013). These foods have less nutritional and immunological value. The habit of giving pre-lacteal food can prevent the supply of colostrum and the continuity of the breastfeeding process (Sari & Angraini, 2019). In our study, it was determined that 38.4% of the midwives gave their babies food (sugared water, formula, water) other than breast milk in the pre-lacteal period. Our study results are consistent with the literature. According to the 2018 TDHS results, 41.7% of the infants were given food before they were breastfed. In their study conducted in our country, Lafçı & Erdem and Yiğitalp & Gümüş found that mothers gave pre-lacteal food to their babies, with sugary water being the food that is most often given (Lafçı & Erdem, 2014; Yiğitalp & Gümüş, 2017). Pre-lacteal feeding affects the breastfeeding process negatively (Novianti & Rizkianti, 2014). In our study, we determined that pre-lacteal foods given to babies other than breast milk increased the risk of terminating breastfeeding. The probability of exclusive breastfeeding in the first 6 months in babies given pre-lacteal food was 74.9% less than in those who were not. Khanal et al. reported that one in four infants was given pre-lacteal food and that it prevented exclusive breastfeeding by 90% (Khanalet al., 2013). Similarly, Novianti and Rizkianti (2014) reported in their qualitative study that the efforts to breastfeed newborns exclusively for the first 6 months were hindered by pre-lacteal feeding. Factors related to the provision of pre-lacteal feeding were reported as low levels of education and less access to health facilities (Novianti & Rizkianti, 2014). However, we think that this situation in midwives, who are health professionals, in our study stems from the tradition of providing pre-lacteal foods and family pressure for giving them.

Despite the recommendations of WHO for exclusive breastfeeding for the first 6 months, we found that only 51.4% of the midwives in our study did exclusive breastfeeding for the first 6 months. According to the 2018 TDHS data, 41% of infants younger than 6 months were exclusively breastfed (TNSA, 2018). In low- and middle-income countries, only 37% of infants younger than 6 months are breastfed (Victora et al., 2016). This rate has been reported as 25.4% in the US (CDC, 2013). When we examined the factors preventing midwives from exclusive breastfeeding in the first 6 months, we found that giving pre-lacteal food to their babies, postpartum psychological status, and time of returning to work after birth were significant variables. In our study, we determined that barriers to midwives' breastfeeding included not only individual reasons but also legal regulations and workplace factors. When asked about the reasons for not breastfeeding/being unable to breastfeed in our study, one out of three midwives stated that their milk was not enough, while one in four mentioned short maternity leave, workload, long working hours, and lack of a suitable place for expressing milk at the workplace. Similarly, physician mothers in some studies reported that they faced this difficulty at the workplace concerning breastfeeding, too (Juengstet al., 2019; Eren et al., 2018). Díaz-Gómez et al. (2016) stated in their study that stopping breastfeeding was associated with low milk production due to the failure to express breast milk during working hours. Sattari et al. stated that physician mothers' barriers to sustaining breastfeeding were difficulties in finding time and place to express their milk while at work, and a perceived lack of employer support (Sattari et al., 2013). Stress factors such as short maternity leave, long working hours that cause babies to be separated from their mothers for long hours, and the absence of a suitable environment for expressing milk make it difficult to stimulate milk production, creating the risk of premature weaning from breastfeeding (Eren, et al.,2018). Maternity leaves shorter than six

months may be one of the main reasons for terminating exclusive breastfeeding in the first 6 months (Ersen et al., 2020).

In our study, the majority of the midwives had wanted to breastfeed until their baby was 2, but only one in four midwives had been able to reach their personal breastfeeding goals. The breastfeeding duration of the midwives was behind the WHO recommendations, too. Melnitchouk et al. reported similar results in their study with physician mothers (Melnitchouk et al., 2018). In our study, midwives who could not exclusively breastfeed their babies for the first 6 months and who returned to work <6 months after birth, had lower rates of breastfeeding until the age of 2. Returning to work can be a difficult transition period for midwives at the end of maternity leave. They may have difficulty in making up for missed time on leave and especially integrating baby care and home and work life at first. For these reasons, it can cause midwives to experience situations, such as expressing insufficient breast milk, clogged ducts, feelings of inadequacy, stress, and burnout, and thus failing to reach their own breastfeeding goals (Hausman, 2014). Increasing the right practices in infant nutrition and feeding with breast milk and protecting infant and adult health will only be possible when midwives have full and accurate knowledge, as well as believe in it. Breastfeeding advocacy of midwives can only be strengthened by satisfying personal experiences. Midwives' guidance and personal memories can encourage everyone they reach out to and support breastfeeding.

5. Conclusions and Suggestions

Postpartum first breastfeeding time, duration of exclusive breastfeeding and total breastfeeding time of midwives fall behind the WHO recommendations. Considering that one out of every three midwives gives pre-lacteal food to their baby, there is a need to implement breastfeeding promotion programs to increase the practice of exclusive breastfeeding and to decrease the practice of pre-lacteal feeding. When the midwives were asked about the reasons for not breastfeeding/being unable to breastfeed in our study, it was determined that one out of three midwives stated that their milk was not enough, while one out of four mentioned short maternity leave, workload, long working hours, and lack of a suitable place for expressing milk in the workplace. Midwives who become mothers face significant barriers to reaching their breastfeeding goals. Revealing that midwives' breastfeeding failure is not just about themselves is an issue that needs to be addressed at all levels.

Midwives need both physiological support and support at the workplace and policy level in their breastfeeding experience. We recommend that policymakers consider the issue from a holistic perspective. We think that the education to be given to older family members about breastfeeding in the prenatal period will be effective in reducing pre-lacteal feeding. The effects of breastfeeding-related regulations are high because the outcomes concern the mother and the child in particular and society in general. In addition, the determination of stress and depression indicators in midwives can provide replacement and additional of resources to help relieve stress factors for midwife mothers who try to continue breastfeeding after returning to work.

References

Alb, C.H., Theall, K., Jacobs, M.B., & Bales, A. (2016). Awareness of United States law for nursing mothers among employers in New Orleans, Louisiana. Women's Heal Issues. *Jacobs Institute of Women's Health, 27* (1), 14-20. http://doi.10.1016/j.whi.2016.10.009

Bai, D.L., Fong, D.Y.T., & Tarrant, M. (2015). Factors associated with breastfeeding duration and exclusivity in mothers returning to paid employment postpartum. *Maternal Child Health Journal, 19* (5), 990-999. http://doi.10.1007/s10995-014-1596-7

Brodribb, W., Fallon, A., Jackson, C., & Hegney, D. (2008). The relationship between personal breastfeeding experience and the breastfeeding attitudes, knowledge, confidence, and effectiveness of Australian GP registrars. *Matern Child Nutrition,* 4, 264-274. http://doi.10.1111/j.1740-8709.2008.00141.x

Cantu, R M., Gowen, M.S., Tang, X., & Mitchell, K. (2018). *Breastfeeding Medicine, 13* (5), 341-345. http://doi.org/10.1089/bfm.2018.0022

Centers for disease control and prevention. Breastfeeding report card. (2021). United States/2013.https://www.cdc.gov/breastfeeding/pdf/2013breastfeedingreportcard.pdf.

Darwent, K.L., McInnes, R.J., & Swanson, V. (2016). The Infant feeding genogram: a tool for exploring family infant feeding history and identifying support needs. *BMC Pregnancy Childbirth, 16* (315), 2-10. http://doi.org/10.1186/s12884-016-1107-5

Dixit, A., Feldman-Winter, L., & Szucs, K.A. (2015). Frustrated, depressed, and devastated pediatric trainees: us academic medical centers fail to provide adequate workplace breastfeeding support. *Journal of Human Lactation, 31* (2), 240-248. http://doi.10.1177/0890334414568119

Eren, T., Kural, B., Yetim, A., Boran, P., & Gökçay, G. (2018). Breastfeeding experiences of female physician. *Türk Pediatri Arsivi, 53* (4), 238-244. http://doi.10.5152/TurkPediatriArs.2017.6497

Ersen, G., Kasim, I., Agadayi, E., Demir-Alsancak, A., Sengezer, T., & Ozkara, A. (2020). Factors affecting the behavior and duration of breastfeeding among physician mothers. *Journal of Human Lactation, 36* (3), 471-477. http://doi.org/10.1177/0890334419892257

Juengst, S. B., Royston, A., Huang, I., & Wright, B. (2019). Family leave and return-to-work experiences of physician mothers. *JAMA Network Open. 2* (10), 471-477. http://doi.10.1001/jamanetworkopen.2019.13054

Khaliq, A., Qamar, M., Hussaini, S.A., Azam, K., Zehra, N., Hussain, M., & Jaliawala, H. A. (2017). Assessment of knowledge and practices about breastfeeding and weaning among working and non-working mothers. *Journal of Pakistan Medical Association. 67* (3), 332-338.

Khanal, V., Adhikari, M., Sauer, K., & Zhao, Y. (2013). Factors associated with the introduction of pre-lacteal feeds in Nepal: findings from the Nepal Demographic and Health Survey 2011. *International Breastfeeding Journal, 8* (1), 2-9. http://doi.10.1186/1746-4358-8-9.

Lafçı, D., & Erdem, E. (2014). 15-49 yaş grubu evli kadınların doğum sonu dönemde anne ve bebek bakımına yönelik geleneksel uygulamaları. *Gaziantep Medical Journal, 20* (3), 226-236.

Melnitchouk, N., Scully, R.E., & Davids, J.S. (2018). Barriers to breastfeeding for US physicians who are mothers. *JAMA Internal Medicine. 178* (8) , 1130-1132. http://doi.10.1001/jamainternmed.2018.0320

Novianti, N., & Rizkianti., A. (2014). Pemberian asupan pre-lakteal sebagai salah satu faktor kegagalan asi eksklusif pada pekerja buruh ındustri tekstil di Jakarta. *Indonesian Journal of Reproductive Health, 5* (1), 23-36.

Pemo, K., Phillips, D., & Hutchinson, A.M. (2020). Midwives' perceptions of barriers to exclusive breastfeeding in Bhutan: A qualitative study, *Women and Birth, 33* (4). http://doi.org/10.1016/j.wombi.2019.07.003

Renfrew, M.J., McFadden, A., Bastos, M.H., Campbell, J., Channon, A.A., Cheung, N.F., Silva, D.R., Downe, S., Kennedy, H.P., Malata, A., McCormick, F., Wick, L., & Declercq, E. (2014). Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care. *Lancet, 384* (9948), 1129-1145. http://doi.10.1016/S0140-6736(14)60789-3.

Riaz, S., & Condon, L. (2019). The experiences of breastfeeding mothers returning to work as hospital nurses in Pakistan: a qualitative study. *Women Birth*, *32* (2), 252-258.

Sari, Y., & Angraini, D. (2019). Determinan pemberian makanan pre-lakteal dini pada bayi usia 0-7 Hari. *Journal Ilmu Dan Teknologi Kesehatan, 7* (1), 47-59. http://doi.org/10.32668/jitek.v7i1.216

Sattari, M., Levine, D., Bertram, A., & Serwint J. R. (2010). Breastfeeding intentions of female physicians. *Breastfeeding Medicine, 5* (6), 297-302. http://doi.10.1089/bfm.2009.0090.

Sattari, M., Levine, D., Neal, D., & Serwin, J.R. (2013). Personal breastfeeding behavior of physician mothers ıs associated with their clinical breastfeeding advocacy. *Breastfeeding Medicine, 8* (1), 31-39. http://doi.org/10.1089/bfm.2011.0148

Sattari, M., Levine, D.M., Mramba, L.K., Pina, M., Raukas, R., Rouw, E., & Serwint, J.R. (2020). Physician mothers and breastfeeding: a cross-sectional survey. *Breastfeeding medicine, 15* (5), 312-320. http://doi.org/10.1089/bfm.2019.0193

Sriraman, N.K., & Kellams, A. (2016). Breastfeeding: what are the barriers? why women struggle to achieve their goals. *Journal of Women's Health. 25* (7). http://doi.10.1089/jwh.2014.5059.

Hoope-Bender, T.P., De Bernis, L., Campbell, J., Downe, S., Fauveau, V., Fogstad, H., Homer, C.S., Kennedy, H.P., Matthews, Z., McFadden, A., Renfrew, M.J., & Van-Lerberghe, W. (2014). Improvement of maternal and newborn health through midwifery. *Lancet, 384* (9949), 1226-1235. http://doi.10.1016/S0140-6736(14)60930-2.

Thepha, T., Marais, D., Bell, J., & Muangpin, S. (2017). Facilitators and barriers to exclusive breastfeeding in Thailand: a narrative review. *Journal of Communitive Public Health Nursing, 3* (1). http://doi.10.4172/2471-9846.1000160

Thussanasupap, B., Lapvongwatana, P., Kalampakorn, S., & Spatz, D.L. (2016). Effects of the community-based breastfeeding promotion program for working mothers: a quasi-experimental study. *Pacific Rim International Journal of Nursing Research, 20* (3), 196-209. http://doi.he02.tci-thaijo.org/index.php/PRIJNR/article/view/43772

Türkiye Nüfus ve Sağlık Araştırması Raporu, (2018). http://www.sck.gov.tr/wp-content/uploads/2020/08/TNSA2018_ana_Rapor.pdf

Waite, W.M., & Christakis, D. (2015). Relationship of maternal perceptions of workplace breastfeeding support and job satisfaction. *Breastfeed Medicine, 10* (4), 222-227. http://doi.10.1089/bfm.2014.0151

World Health Organisation Exclusive breastfeeding (2019). http://www.who.int/elena/titles/exclusive_breastfeeding/en/Google Scholar

Vedam S, Stoll K, MacDorman M, Declercq, E., Cramer, R., Cheyney, M., Fisher, T., & Kennedy, H.P. (2018). Mapping integration of midwives across the United States: impact on access, equity, and outcomes. *PLoS One, 13* (2), e0192523. http://doi.org/10.1371/journal.pone.0192523

Victora, C.G., Bahl, R., Barros, A.J., França, G.V., Horton, S., Krasevec, J., Murch, S., Sankar, M.J., Walker, N., & Rollins, N.C. (2016). Breastfeeding series group. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *Lancet.* Jan 30, *387* (10017), 475-490. http://doi.10.1016/S0140-6736(15)01024-7. PMID: 26869575.

Yalçın, S.S, Çaylan N., Yalçın S., & Eryurt M.A. (2020). Trends and determinants of pre-lacteal feeding in Turkey: analysis of 2003-2018 demographic and health surveys. *Public Health Nutrition.* 1-14. http://doi.10.1017/S1368980020002037

Yiğitalp, G., & Gümüş, F. (2017). Diyarbakır'da 15-49 yaş kadınların bebek bakımıyla ilgili geleneksel uygulamaları. *Türkiye Çocuk Hastalıkları Dergisi, 3,* 188-196. http://doi.10.12956/tjpd.2017.266

Declarations: This study was presented as an oral presentation at the 1st International Gulhane Breast Milk and Breastfeeding Congress held in Ankara on 18-20 June 2021. The abstract is published in the proceedings book. The authors thank all midwives who participated in this study for their cooperation. No potential conflicts of interest were reported by the authors. It is not produced from the thesis work. The authors received no financial support for the research, authorship, and publication of this article. Author contributions; Idea: ED, Design: ED, Data Collection or Processing: ED, FNT, FAR, Analysis/comment: ED, FNT, FAR, Literature display: ED, Author: ED, Critical Review: ED, FNT, FAR