

Original Article

Factors Affecting Mothers' Breastfeeding

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Correspondence: Keloglan Seval, Assistant Professor, Amasya University, Faculty of Health Sciences, Nursing Department E- mail: seval.keloglan@amasya.edu.tr**Abstract****Background:** Breastfeeding is crucial for the baby to grow healthfully. Factors affecting breastfeeding should be recognized in order to support it and provide effective breastfeeding counseling. This research was conducted as a descriptive study.**Objective:** to investigate the factors affecting the breastfeeding status of the postpartum mothers.**Methodology:** The universe of the research consists of mothers giving birth at Amasya University Sabuncuoglu Serefeddin Education Research Hospital. A total of 51 mothers who gave birth and stayed in the postpartum service in the same constitution between June-December 2016, fit the sample criteria and volunteered to participate in the study. LATCH breastfeeding diagnostic tool was used in the research. SPSS 22 package program was used to evaluate data.**Results:** LATCH scale average score was 8.76 ± 1.46 (min=3, max=10). %68.6 of the mothers gave birth with C-section. When the first breastfeeding period after birth was evaluated, %37.3 (n=19) of the mothers stated that they fed the baby within the first half hour, %62.7 (n=32) stated that they fed within 30 mins-1 hour period. A significant relationship was found between the LATCH breastfeeding score and mother having breastfeeding experience ($p=0.01$). The lowest average score from the LATCH scale items was from the "comfort breast/nipple" item with an average score of 0.196 ± 0.448 . %82.4 (n=42) of the mothers stated that they used medication during pregnancy and no significant relationship was found between medication use and LATCH score ($p>0.05$).**Conclusion:** As a result of the study, age, education level and gender of the baby were determined as factors which do not affect breastfeeding. It was also detected that breastfeeding the baby within the first half hour is not common, the lowest scale score was taken from the "comfort breast/nipple" item and nipple pain and sunken breast make breastfeeding difficult for mothers.**Keywords:** Mothers, Counseling, Breastfeeding**Introduction**

Breastfeeding up to the end of two years is recommended because of its physiological and psychological benefits (Sahin and Ertekin, 2017). Breast milk provides both nutrition and immunity required for the baby's growth and development in the first months (Elad et al., 2014). Besides being an excellent nutritional source for the growing baby, breast milk also protects babies from the infections since it includes antibodies, cytokines, growth factors, antimicrobial substances and specific immune

cells (Aslan and Dinc, 2015). Inadequate micronutrient intake during pregnancy may lead to abort or stillbirth, birth defects, preterm baby, small baby according to the gestational age in early period; and death, differences in growth and development and cardiometabolic, pulmonary or neurologic defects in late periods (Germand et al., 2016).

Breastfeeding is strongly encouraged by many communities. Not just for the newborn, benefits of starting breastfeeding at the earliest possible postpartum time for the mother is also well

known. However, according to the Turkey Population Health Research results (Hacettepe University Institute of Population Studies), breastfeeding rate within 1 hour after birth is %49.9 and breastfeeding rate within 1 day is %70.2. Mother thinking that her milk is not enough, delicate nipples, lack of adequate draining, oedema formation, obstruction due to the diminished lymphatic drainage, nipple chaps and plain nipple are among the problems faced during breastfeeding (Mathur and Dhingra, 2014). Providing counseling about the problems faced in this process raises the breastfeeding rate (Çaka et al., 2017). Healthcare professionals are the most important people to support mother during the postpartum period. Therefore, one of the responsibilities of nurses' about breastfeeding is the evaluation of breastfeeding. In this way, problems can be detected early and interruption of breastfeeding can be prevented.

Research Question

Do the descriptive factors related to mothers and babies affect LATCH average scores?

Methodology

Aim

Our aim with this research is to evaluate breastfeeding in order to support successful breastfeeding and examine the factors affecting it.

Study design

This research was conducted as a descriptive study in order to investigate the factors affecting the breastfeeding status of the postpartum mothers. Universe of the research consists of mothers giving birth at Amasya University Sabuncuoglu Serefeddin Education Research Hospital, which is a baby-friendly hospital. A total of 51 mothers who gave birth June-December 2016 and stayed in the postpartum service in the same constitution, fit the sample criteria and volunteered to participate in the study were chosen by improbable sampling method. Criteria to be involved in the study are; being in the term period (38 weeks or more), being healthy, having no chronic disease preventing breastfeeding and being volunteered to participate in the study for women and having 5 min APGAR score 7 or above and having no congenital anomalies for babies. Premature birth, a situation preventing mother or baby to breastfeed and mother's unwillingness to

participate are the criteria of exclusion from the study.

LATCH breastfeeding diagnostic tool, of which the Turkish reliability was studied by Yenal and Okumus (2003), was used in the research. Requisite permission to use the scale was obtained via e-mail. The measurement tool consists of five evaluation criteria. LATCH consists of the first letters of the English equivalents of these criteria. These criteria are:

L: Latch on breast, A: Audible swallowing, T: Type of nipple, C: Comfort breast/nipple, H: Hold/help

Each item is evaluated between 0-2 points and the total score is 10.

Descriptive data form consists of two sections. First section includes 5 questions about mother's sociodemographic characteristics, last menstrual date and the gender of the baby. Second section consists of 8 questions about form of birth, APGAR score regarding breastfeeding status and the baby and information about weight, height etc. APGAR score, weight, height and the head circumference of the baby are obtained from the mother's patient file. Pretesting of the draft survey form was conducted and its deficiencies were corrected. Surveys used for pretesting are not included in the study.

Data were collected at the postpartum clinics. LATCH diagnosis form was filled in by the researcher within the first 48 hours. Breastfeeding of each mother was observed and the appropriate situation was marked in accordance with the breastfeeding observation. Gathering the data lasted approximately 15-20 mins for each mother. Requisite permission to conduct the research was obtained from the Amasya University ethical board and from the institution where the research is conducted. Informed consent was obtained from the participants who accepted to be involved in the research.

Data Analysis

Dependent variables of the research is determined as the score obtained from the breastfeeding diagnosis tool and the independent variables are determined as the age of mother, education level, gender of the baby, mother's chronic diseases, mother's experience, usage of nourishment other than breast milk. SPSS 22 (Statistical Package for Social Sciences) were

used to evaluate data. Descriptive characteristics of the data was evaluated as number, percentage and average. For statistical analysis, reliability level was evaluated by using cronbach alpha coefficient and was found 0.710. Non-parametric tests were used for analysis since the scale does not fit the normal distribution. The statistical significance level was accepted as $p < 0.05$.

Results

Average age of the mothers who participated in the study is 27.54 ± 5.33 . A 54.9% ($n=28$) of them are primary school graduates and 68.6% ($n=35$) of them are within the first 24 hours after labor. Descriptive factors regarding mother are given at Table 1. When information about babies are examined, it is detected that average weight is 3362.01 ± 378.20 grams, average height is 50.03 ± 0.63 cm, average head circumference is 34.4 ± 1.22 cm and %58.8 of them are girls. First minute APGAR score average was detected as 9.74 ± 0.44 (min=9 max=10) and 5th minute APGAR score average was detected as 9.92 ± 0.27 (min=9 max=10).

The Cronbach's Alpha coefficient of LATCH breastfeeding diagnosis tool was 0.710 in accordance with the data gathered within the score of research.

LATCH breastfeeding diagnosis tool and subscale average scores are given at Table 2. LATCH scale average score were found 8.76 ± 1.46 (min=3, max=10). A 86.3% ($n=44$) of the mothers stated that they don't have a chronic disease and %82.4 ($n=42$) stated that they used medication during pregnancy. Medication usage during pregnancy was investigated in order to evaluate its affects on the breastfeeding success. A 82.4% ($n=42$) of the mothers stated that they used medication regularly during pregnancy. No significant relationship was found between the LATCH score and the usage of iron supplements or fish oil ($p > 0.05$). Distribution of the LATCH average scores and using medication during pregnancy is given at Table 3.

It was detected that 64.7% ($n=33$) of the mothers had training on breastfeeding during their pregnancy. A 66.7% ($n=34$) of the mothers stated that they have breastfeeding experience and a significant relationship was detected

between LATCH breastfeeding score and having experience on breastfeeding ($p=0.010$). A 68.6% ($n=35$) of the mothers gave birth by C-section. When the first breastfeeding period after labor was evaluated, 37.3% ($n=19$) of the mothers stated that they fed the baby within the first half hour, %62.7 ($n=32$) stated that they fed within 30 mins-1 hour period. It was stated that 21.6% ($n=11$) of the babies were formula-fed during their stay at the clinic. 56.9% ($n=29$) of the mothers stated that they don't have a problem complicating the breastfeeding process. Among the mothers who stated that they have a problem complicating breastfeeding process, 25.5% ($n=13$) of them stated that they have breast problems (sunked breast, nipple pain). Information on other factors affecting the breastfeeding status are given at Table 4.

Discussion

It is recommended by World Health Organisation (WHO) and United Nations International Children's Emergency Fund (UNICEF) (2009) to start breastfeeding within the first half hour after labor. As a result of the study, it was detected that breastfeeding within the first half hour is not common. It was detected that %37.3 of the mothers start breastfeeding within the first half hour and %62.7 of them started within 30mins-1hour.

According to the Turkey Population Health Research data, %50 of the babies started breastfeeding within the first 1 hour after labor (HUNEE, 2014). Although UNICEF (2014) stated that the ratio of starting breastfeeding within the first hour after labor is %43 worldwide and %53 among underdeveloped countries; using different descriptions, timings and different data collecting methods makes it difficult to compare countries' breastfeeding ratios (Earle, 2002).

Also, while no significant relationship was found between the LATCH scale score and the breastfeeding time within the scope of the research, in a study conducted by Gercek et al., LATCH score was found significantly higher among those who started breastfeeding within the first 30 minutes.

Table 1. Distribution of the Descriptive Factors Regarding the Mother (N=51)

Characteristics	N	%
Education Level		
Primary School	28	54.9
Highschool	12	23.5
University	11	21.6
Age		
26 and below	23	45.1
27 and above	28	54.9
How many hours has it been since labor?		
24 hours	35	68.6
24-48 hours	16	31.4

Table 2. LATCH Breastfeeding Diagnosis Tool and Subscale Average Scores

Scale Criteria	$\bar{X} \pm SD$
L: Latch on breast	1.882 ±0.381*
A: Audible swallowing	1.823±0.385
T: Type of nipple	1.862±0.490
C. Comfort breast/nipple	0.196 ±0.448**
H: Hold/Help	1.411±0.697
Total	8.764±1.464

*Minimum average, **Maximum average

Table 3. Comparison of the LATCH mean Scores and Medication Usage i Pregnancy (N= 42)*

	n	%	LATCH score $\bar{X} \pm SD$	Test and p
Medication Usage				
Yes	42	82.4	8.66±0.23	Z:-1.204
No	9	17.6	9.22±0.36	p:0.229
Iron				
Yes	32	62.7	8.46±0.29	Z:-1.430
No	10	19.6	9.30±0.21	p:0.153
Vitamin				
Yes	25	49	8.76±0.30	Z:-0.395
No	17	33.3	8.52±0.38	p:0.692
Fish Oil				
Yes	5	9.8	9.20±0.20	Z:-0,537
No	37	72.5	8.59±0.26	p:0.591

*More than one options were marked.

Table 4. Comparison of the LATCH Average Scores with Individual Characteristics of Mothers and Characteristics Regarding Infant Nutrition

Variable	n	%	LATCH score $\bar{X} \pm SD$	Test and p
A				
26 and below	23	45.1	8.34±1.96	Z: - 0.782
27 and above	28	54.9	9.10±0.73	0.434
Education Level				
Primary School	28	54.9	9.07±1.18	x ² : 3.738
High School	12	23.5	8.25±1.81	0.154
University	11	21.6	8.54±1.63	
Time to Start Breastfeeding				
Within first 30 mins	19	37.3	8.76±0.32	Z:0.134
30mins-1hour	32	62.7	8.78 ±0.26	0.893
Gender of the Baby				
Girl	30	58.5	8.53±1.61	Z: -1.388
Boy	21	41.2	9.09±1.17	0.165
Experience				
Yes	34	66.7	9.23	Z:-2.582
No	17	33.3	7.82	0.010
Chronical disease				
Yes	7	13.7	9.42±0.53	Z:-1.247
No	44	86.3	8.65±1.53	0.213
Usage of formula				
Yes	11	21.6	8.18±2.27	Z:-0.716
No	40	78.4	8.92±1.14	0.474

The fact that the baby is physiologically more ready for breastfeeding within the first 30 minutes after labor is a facilitating factor for breastfeeding. We think that the result from our research is a result of the fact that only %37.3 of the mothers started breastfeeding within the first half hour. In this research, similar to Bostancı and İnal's study (2015), no significant relationship was found between the LATCH score and age of mother and education level. Also, LATCH average scores show similarity (8.76 ± 1.46). In this study, a significant relationship was found between the LATCH scale score and experience in breastfeeding ($p < 0.05$). Similar to that, in Kuçukoglu and Celebioglu's (2014) study, breastfeeding self-efficacy of mothers were found higher among those who have experience in breastfeeding. It can be said that the experienced mothers have more advantage in breastfeeding and lack of experience may cause breastfeeding to be interrupted.

Lowest score from the LATCH scale was obtained from the "comfort breast/nipple" item with a score of 0.196 ± 0.448 . In accordance with this finding, it was detected that %25.5 ($n=13$) of the mothers had problems about breasts (sunked breast, nipple pain). If the mother has nipple pain of her nipple is cracked, they should be told that this may be caused by misplacing the baby and it may cause breastfeeding to be interrupted (Bilgin and Potur, 2010; Leung, 2016; Li et al., 2008). During this process, efficient communication techniques should be used to make mother feel confident and efficient counseling service towards physiological problems should be provided.

Iron reinforcement to pregnant women is one of the most common public health precautions (Allen, 2000). According to the World Health Organization (2015), anemia prevalence among pregnant women is %38.2 and in general approximately %50 of the anemia cases are due to iron deficiency. When the medication used by the mothers participated in the research was examined, it was detected that %62.7 used iron and %49 used vitamin pills. Sözeri et al. (2006) found in their study that %71.6 of the pregnant women used vitamin and %61.0 used iron pills. No relationship was found between the LATCH breastfeeding score and the vitamin and iron pills widely used during pregnancy. In order to interpret this result properly, support of the

researches done in this field is needed. Although statistically not significant, the breastfeeding success score of the mothers with chronic diseases were found higher than the scores of the mothers who do not have chronic disease. This result may be because of the individual factors since it is a known fact that the chronic diseases are one of the major factors of pregnancy depression (Calık and Aktas, 2011). At the same time, it is stated in literature that mothers with depression are more worried about breastfeeding (Annagur and Annagur, 2012). For this reason, mothers with chronic disease should be monitored closely in terms of breastfeeding.

Limitations

Limitations of the study are that the research was conducted at a single hospital, between certain dates and with a limited number of mothers.

Conclusion

As a result of the study, a significant relationship was found between LATCH breastfeeding success score and experience in breastfeeding, no difference was found between other variables. The lowest scale score was obtained from the "comfort breast/nipple" item. Furthermore, it was detected that breast pain is a factor which may cause breastfeeding to be interrupted. It should be taken care that the breastfeeding position is proper in order to avoid nipple damage. It was detected that breastfeeding within the first half hour is not common. Considering the results of the research and clinical observations, applications should be made to encourage the mother to breastfeed properly.

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