Evaluation of Efficient Postnatal Breastfeeding Status in Mothers

Annelerin Doğum Sonrası Etkin Emzirme Durumlarının Değerlendirilmesi

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ABSTRACT

Objective: This cross-sectional study was carried out in order to evaluate the efficiency of postnatal breastfeeding in mothers.

Method: The study took place at the Turkish republic ministry of health, and University hospital gynecology and obstetrics clinic between March-May 2012. 298 mothers and their children, who have delivered during the same period and who met the sample selection criteria, formed the research sample. A questionnaire, and which was prepared by the researchers in line with the relevant literature and LATCH breastfeeding identification tool, which included the above criteria, was used by the researchers in order to collect data. Data analysis was done using the SPSS 20 software. Percentiles, means, t-tests and ANOVA were used for statistical analysis.

Results: It was conferred that; mothers', who were admitted to the sample group, average of age was 28.04±5.91, and babies' fifth minute APGAR score was 9.16 ±07.1. It was determined that the total LATCH score was 8.36±1.57. A statistically significant relation between total LATCH scores and the mother's educational background (F=5.18, P<0.05), count of gestation (F=4.57, P<0.05), first APGAR score and the two hospitals has been determined.

Conclusion: LATCH breastfeeding identification tool may be used for mothers' pre discharge breastfeeding evaluation.

Keywords: Breastfeeding, successful breastfeeding, evaluation of breastfeeding, LATCH, nursing, midwifery.

ÖZ

Amaç: Bu araştırma annelerin doğum sonrası etkin emzirme durumlarının değerlendirilmesi amacıyla kesitsel olarak gerçekleştirildi.

Yöntem: Araştırma, Mart-Mayıs 2011 tarihleri arasında eğitim araştırma hastanesi kadın hastalıkları ve doğum kliniğinde (137), ve üniversitesi hastanesi kadın hastalıkları ve doğum kliniğinde (161) gerçekleştirildi. Araştırmanın evrenini Mart-Mayıs 2011tarihleri arasında doğum yapan anneler ve bebekleri oluşturdu. Araştırmanın örneklemini aynı tarihler arasında doğum yapan ve örneklem seçim kriterlerine uyan toplam 298 anne ve bebekleri oluşturdu. Araştırmaya 18 yaş ve üzerinde olan anneler ile doğum ağırlığı 2500gr ve üzerinde ve 5. dakikadaki APGAR skoru 8 ve üzerinde olan bebekler alındı. Verilerin toplanmasında araştırmacılar tarafından literatür doğrultusunda hazırlanan 25 soruluk anket formu ve beş kriterden oluşan LATCH (memeyi tutma, bebeğin yutma hareketlerinin görülmesi, meme ucunun tipi, annenin meme ve meme ucuna ilişkin rahatlığı, bebeği tutuş pozisyonu) emzirme tanılama ölçüm aracı kullanıldı. Anket formu doğumdan sonra annelerin bulguları stabil olduğunda yüz yüze görüşme ile doldurudu. LATCH emzirme tanılama ölçüm aracı ise emzirme sırasında gözlem yolu ile doldurudu. Verilerin değerlendirilmesi SPSS 20 Paket programı ile yapıldı. Elde edilen verilerin istatistiksel analizinde yüzdelik, ortalama, t testi ve ANOVA kullanıldı.

Bulgular:Örnekleme alınan annelerin yaş ortalaması 28.04±5.91 (minimum 18-maksimum 45), bebeklerin 5. Dakikadaki APGAR skoru 9.16 ±07.1 (minimum 8- maksimum 10) olduğu görüldü. Toplam LATCH puanının 8.36±1.57 olduğu saptandı. Toplam LATCH puanı ile annenin eğitim durumu (F=5.18,P<0.05), gebelik sayısı (F=4.57,P<0.05), 1. dakikadaki APGAR skoru ve iki hastane arasında istatistiksel olarak anlamlı ilişki olduğu saptandı.

Sonuç: LATCH emzirme tanılama ölçüm aracının anneler taburcu olmadan önce emzirmenin değerlendirilmesinde kullanılabileceğini göstermektedir.

Anahtar Kelimeler: Emzirme, Başarılı emzirme, Emzirmenin değerlendirilmesi, LATCH, hemşireli, ebelik.

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Background

Breastfeeding is the most appropriate and unequaled nutrition method for babies' healthy growth. Successful maintenance of breastfeeding is closely related to the initiation of breastfeeding during the first few hours and days after birth, and the education and care provided to the mother postnatal (1-3). Breastfeeding rates around the world as well as in our country are still not up to the mark despite society's increased consciousness of breast milk and the increase in the number of baby friendly hospitals. As is known, long term providing of breast milk to the baby is affected by factors like the time of first time breastfeeding, breastfeeding frequency, time of transition to nutritional supplements, whether birth occurred unexpectedly or not and mother's employment status. Other effective factors are the inability of mothers' - who suffer from breastfeeding problems like breast refusal and nipple problems – getting professional support from healthcare personnel and their tendency to feed babies with baby food (2-9).

Previous research demonstrated that breastfeeding is a common and traditional practice in Turkey (4-6,10). According to the 2008 Turkish Population and Health Research (TPHR 2008) data, almost every baby is fed with breast milk in the first few months following birth. This proportion is declining to 90% on the 6th month and 70% on the 12th month. However, in Turkey, 70% of babies who are younger than two months are only fed with breast milk. This rate declines quickly afterwards, down to 42% in babies who are 2-3 months old and to 22% in babies who are 4-5 months old. Only 40% of babies who are younger than six months are fed with breast milk (10).

In addition, accuracy of the breastfeeding method is also important on the sustenance of lactation (11).

In much of the world as it is in Turkey, there has been problems regarding breastfeeding and accommodation and encouragement of breastfeeding is considered as a public health policy (1). Also, studies have been carried out in order to increase breastfeeding rates.

Despite the suggestion of breast milk made by the American Academy of Pediatrics (AAP), 75% of mothers start to breastfeed their babies after birth, but 50% of mothers stop breastfeeding and start to feed their babies with baby food at the end of the first week after delivery, and only 31% of mothers continue breastfeeding on the ninth month (12). In order to increase these rates, it is among 'Healthy People 2020'goals in the USA to increase the breastfeeding rate of neonates to 82%, six month olds to 61%, and one year olds to 34% (13).

As in developed countries as well as Turkey, duration of hospital stays are shortening due to reasons like expensive healthcare and insufficient number of beds (14-18).

The fact that hospital stays being too short after vaginal deliveries makes the assessment of mother's breastfeeding status and determination of problems, providing training and intervention, a necessity (14,15,18). Unfortunately, early discharge makes it difficult for nurses and midwives to assess the mother's breastfeeding status and to provide them with the necessary education as they may not have enough time to do so (15,16).

In order to perform breastfeeding in an accurate way and to continue breastfeeding, which is a learned behavior, mothers should have successfully breastfed their babies twice at least prior to discharge. Mothers who may be under risk regarding breastfeeding in particular should be assisted. Thus, one of the scoring systems used for an objective and quick assessment of breastfeeding is LATCH (16,19). This study has been carried out in an attempt to evaluate mothers' postnatal breastfeeding status using LATCH breastfeeding identification tool.

Methods

This study was planned as a cross-sectional study. The study was carried out between March - May 2012 at the health and research hospital, clinic of obstetrics and gynecology (137), and university clinic of obstetrics and gynecology (161). Mothers who gave birth between March – May 2012 and their babies formed the population. 298 mothers, who gave birth during the same period and who met the sample group criteria, and their babies, formed the sample group.

Mothers who gave birth during the three month period, who accepted to participate in the study, who were aged 18 years and older, whose babies had a birth weight of 2500 grams and higher, and whose babies had a 5th minute APGAR score of 8 and higher were included in the study (N=298).

Data Collection Tools: A questionnaire which consists of 25 questions and generated according to the relevant literature by the researchers and the LATCH breastfeeding identification tool was used for data collection. A pilot study was conducted with 10 mothers prior to the study. Subsequently, necessary revisions were made and the questionnaire was finalized. The questionnaires that were used in the pilot administration were not included in the study. On the questionnaire, questions concerning mothers' demographic characteristics such as age, educational background, employment status, cohabitants, birth count, etc. were included. In addition, questions regarding the status of receiving routine check-ups during pregnancy, nipple problems, and status of being educated on breastfeeding were prepared. Apart from these, questions concerning the baby's weight, birth week, APGAR score, and gender were included in an effort to evaluate the baby.

The LATCH (Appendix 1) was developed by Jensen et al. in 1994, and its validity and reliability studies were carried out by Yenal and Okumuş (2003), who reported it to be a reliable tool (Cronbach alpha: .94-.96) (17,18,20).

The LATCH breastfeeding identification tool involves five easy-to-use criteria. The acronym LATCH consists of the initials of the five criteria in English. Every item in the LATCH breastfeeding scale criteria is evaluated between 0-2 points. The highest score that can be obtained from the LATCH scale is 10, whereas the lowest is 0 (17-21)**.**

Data Collection: The questionnaire was applied via face-to-face interviews to mothers who have accepted to participate in the study. Mothers were marked on the LATCH breastfeeding identification tool prior to discharge by the researchers who observed them. Mothers were discharged after they were retrained and reinformed.

Data Analysis: The SPSS 20 software package was used for data analysis. On the statistical evaluation of gathered data, percentages and means; on the comparison of means of the two groups, t-tests and ANOVA were used.

Ethics: Legal permission was obtained from the relevant institutions prior to commencing the study. Mothers who met the necessary criteria were briefed about the study and the ones who volunteered were admitted to the sample group.

Results

Mothers who were admitted to the sample group had an age average of 28.04±5.91 (minimum 18-maksimum 45) and their educational background consisted of categories as follows: literate and primary school (Woman:49.7%-Husband: 43.3%), middle school (Woman: 14.8%- Husband: 19.2%), high school (Woman: 18.8%-Husband: 20.5%), university (Woman: 9.7%- Husband: 15.4%), and illiterate (Woman: 7.0%, Husband: 1.3%).

The majority of the women who were admitted to the sample group were unemployed (74.8%) and were members of a nuclear family (79.5%). Among the

women, only 25.2% were employed and 20.5% were part of an extended family.

Obstetric Characteristics of the Mothers

When obstetric histories of the mothers were examined, it was evident that 36.1% of them had delivered once, 36.8% delivered twice, 17.2% delivered thrice, 6.3% delivered four times, and 3.6% delivered five times and more.

During gestation, mothers went to the following types of institutions for routine check-ups: public hospital (41.9%), private hospital (24.8%), community clinic (11.4%), and private doctor (3.7%). 2.3% of the mothers did not receive any kind of routine check-up.

It was determined that on the last pregnancies of mothers, the average number of routine check-ups was 9.64 (min=0-max=20) and the average count of birth was 2.05 (min=1-max=5). Only 22.1% of the mothers were reported to have received breastfeeding training, whereas 77.9% did not receive such training.

It was determined that 45.0% of the mothers had vaginal and 55.3% had caesarean deliveries. When postnatal breastfeeding status was examined, it was found that 22.5% of the mothers started to breastfeed during the first half an hour, 8.7% in the half an hour-an hour, 35.9% in an hour-the first two hours, 31.2% in two hours-24 hours, and 1.7% after 24 hours.

It was determined that 19.5% (n=58) of the mothers had problems regarding breastfeeding. Of these problems, it was determined that 6.3% (n=19) were breast-related and 13.1% were baby-related. When the breast-related issues were explored, 2.7% of the mothers reported that their nipples were sunk, 2.3% reported that their nipples were flat, and 1.7% reported that their breasts were large. It was also determined that 8.4% of the mothers suffered from nipple cracks related to the lack of efficient breastfeeding and 7.8% suffered from their breasts being extremely strained.

When the status of mothers' breastfeeding of their previously born babies was evaluated, nearly all of them (98%) were determined to have breastfed their previously born babies.

It was determined that the first nutrient that the mothers fed their babies with was: solely breast milk (54.4%), baby food with breast milk (38.3%), solely baby food (6.7%), and 0.7% of the mothers left the question unanswered.

Among the mothers, 62.1% stated that they fed their babies every time they cried, 17.8% fed their babies on the hour, 19.5% hourly, and 0.7% with lengthier intervals.

It was determined that 74.8% of the mothers who were admitted to the sample group had a companion with them and 25.8% did not. Among the mothers, 46.3% were determined to have asked for assistance during breastfeeding, 49.0% did not, and 4.7% have occasionally asked for assistance. 8.7% of the mothers' nipple-related problems were determined to be solved before discharge; while 10.7% of these problems could not be solved. Education provided on breastfeeding postnatally in the hospital demonstrated that 12.4% of the mothers were educated very well, 69.8% well, 9.1% mediocre, 1.7% poorly, and 0.7% had never received education on the topic.

Defining Characteristics of the Newborns:

Among the newborns, 55.0% were determined to be male and 45% to be female. Their first minute mean APGAR score was determined to be 7.91±1.14 (min 4-max 9), whereas their fifth minute mean APGAR score was determined to be 9.167±0.719 (min 8- max 10). Weight average of the newborns was determined to be 3267.69 ±460.94 kg (min.2500-4870)

Table- 1. Distribution of the Mean LATCH Scores of the Babies (N=298)

Evaluation Criteria	Average /SD	Min.	Max.
L: Latching on to the breast	1.620±0.56	0	2
A: Amount of audible swallowing noted	1.560±0.52	0	2
T: Nipple type	1.879±0.36	0	2
C: Mother's level of comfort concerning breast and nipple type	1.902±1.18	0	2
H: Baby holding position	1.469±0.55	0	2
Total Points	8.362±1.57	2	10

Table -2. Distribution of Mother and Baby Characteristics with Regard to the Mean LATCH Scores (N=298)

Mother Characteristics		**N (%)**	**Total LATCH (x ± SD)**	
Age	28.047±5.91 (18-45)			
	15-19	19 (6.4)	8.58±1.39	F=1.143
	20-24	73 (24.5	8.40±1.53	p=966
	25-29	83 (27.6)	8.31±1.67	
	30-34	75 (25.3)	8.37±1.55	
	35-39+	48 (16.2)	8.29±1.61	
Hospitals	Research and practice hospital	137 (46.0)	7.89±1.63	t= -4.88,
	university hospital	161 (54.0)	8.75±1.40	p=00
Educational background	Literate-primary school	148 (49.7)	8.619	F=5.186,
	High school	56 (18.8)	1.498	p=00
	Middle school	44 (14.8)	1.437	
	University	29 (9.7)	7.241	
	Illiterate	21 (7.0)	8.619	
Gestation count	1st Gestation	106 (35.6)	7.93±1.69	F=4.57,
	2nd Gestation	110 (36.9)	8.56± 1.57	p<0.05
	3rd Gestation	52 (17.4)	8.76±1.11	
	4th+ Gestation	30 (10.1)	8.43 ±1.5	
Type of delivery	Vaginal delivery	134 (45.0)	8.552±1.44	t=1.920,
	Cesarean delivery	164 (55.0)	8.207±1.65	p=.056

Newborn's Characteristics		**Average±SD**	**Min. Max.**	
Height (cm)		49.70±2.48	41- 57	
Birth Weight (kg)		3267.69 ±460.94	2500-4870	
1st Min. Apgar Value		7.91±1.14	4- 9	
5. Min. Apgar Value		9.17±0.71	8- 10	
Gender	Male	164 (55.0)	8.50±1.54	t= -1.67,
	Female	134 (45.0)	8.94±1.59	p=0.94

and their average height was 49.70±2.48 cm (min 41-max 57).As shown in Table 1, it is conferred that the reason for the mean LATCH score being 8.36±1.57 is the lowest position of holding the baby and the amount of audible swallowing noted.

Distribution of mother and baby characteristics with regard to the mean LATCH scores is given in Table 2. While a significant relation between the LATCH scores and mother's age could not be determined, mothers who delivered at the medical faculty had significantly higher LATCH scores than mothers who delivered at the public hospital. LATCH scores of illiterate, literate and primary school graduate, and university graduate mothers were found to be significantly higher than the LATCH scores of high school and middle school graduate mothers. When the relation between mothers' LATCH scores and gestation count was examined, it was determined that mothers who had their first babies had significantly lower LATCH scores.

It was found that total LATCH score was significantly related to educational background ($F=5.18$, $P<0.05$), gestation count ($F=4.57$, $P<0.05$), 1st minute APGAR score, and the two hospitals.

Discussion

Postnatal mother-baby adaptation and beginning breastfeeding correctly is the first step of successful breastfeeding. In order to assess breastfeeding before discharge and determine the relevant problems, the use of LATCH and similar breastfeeding identification tools by nurses/midwives is substantial. In Turkey, breastfeeding is a traditional event and the majority of mothers breastfeed their babies. However, problems regarding delayed initiation of breastfeeding and its sustenance exist (10).

In our study, a statistically significant relation has been determined between total LATCH scores and mothers' educational background ($F=5.18$,$P<0.05$). This result has demonstrated that, contrary to expectations, LATCH scores of 'literate-primary school graduate' and 'illiterate' mothers were higher (Table 1). In developed countries, mother's higher level of education and duration of breastfeeding is directly proportional; whereas in developing countries, sustenance of breastfeeding and educational level is inversely proportional (22). This result may be interpreted as mothers with lower levels of education are more willing to breastfeed their babies.

It was determined that the majority of mothers who participated in our study were unemployed (74.8%). Postnatal leaves being short in Turkey and mothers starting work prematurely are two of the factors that affect sustenance of breastfeeding negatively (14, 22). However, the small number of employed mothers in our study gave rise to the thought that mothers' employment status did not have a negative effect on breastfeeding. Another finding acquired in our study is that mothers' caesarean delivery (55.2%) percentage is high. This is an important finding because on the studies carried out by Akyüz et al. (2007) and Bolat et al. (2011), it was determined that mothers who delivered by caesarean section commenced breastfeeding relatively later than those who delivered vaginally (1,22). Tornese et al. (2012) carried out an evaluation in the first 24 hours following delivery before mothers were discharged and reported that the LATCH scores of mothers who delivered by caesarean section were relatively lower and these mothers should be given support (23). Regarding early commencing of breastfeeding and providing the baby with breast milk as the first nutrient is at risk in mothers who have been in our sample. For this reason, it may be stated that caesarean section should be avoided unless it is necessary.

It was determined that mothers went to various hospitals, of these hospitals they went mostly to public hospitals (41.9%) and the average control count was 9.64 (min.00-max.20). In Turkey, the advice of Ministry of Health on the matter is to receive at least four prenatal follow-ups (24). In our study, it was found that despite the average control count being high, the rate of receiving breastfeeding education during gestation was too low (22.1%). The absence of breastfeeding education, which is among

indispensable educational subjects of prenatal monitoring, would affect mothers' dealings of early commencing and sustenance of breastfeeding. In the study carried out by Akyüz et al. (2007), it was determined that only 25% of breastfeeding mothers have received breastfeeding education. For successful breastfeeding, mothers should be provided education on this subject; which should start during gestation and be carried out later on. Results of our and other studies gave rise to the thought that nurses should be more active regarding the subject of education. A statistically significant relationship between total LATCH score and mother's gestation count was determined ($F=4.57$, $P<0.05$).

In result of the study carried out by Ünsal et al. (2005), it was found that the breastfeeding rate of mothers with one child was significantly higher ($p=0.003$) than of mothers with more than one child (14). These results bare similarities with the results of our study.

In our study, it was found that nearly all mothers (98.3%) started to breastfeed following delivery, but 31.2% started breastfeeding in the first hour and the rest of them did so in later periods.

When other studies conducted in Turkey were examined; the Turkish Population and Health Research 2008 data shows that in Turkey, almost all babies are breastfed following delivery (1)). Results of the study carried out by Ünsal et al. (2005) shows that 93.7% of babies are breastfed following delivery. In the same study, it was shown that 71.8% of mothers have breastfed their babies within the first our following delivery and that beginning breastfeeding at later periods affected the sustenance of breastfeeding and breastfeeding for a longer time (14).

Results of the study carried out by Bolat et al. (2011) determined that mothers who received prenatal breastfeeding education and delivered normally started breastfeeding earlier (22). These results are parallel to our study findings.

In our study, it was specified that 19.5% of the mothers (58 people) had problems regarding breastfeeding. Of these problems, 6.3% of them were (19 people) breast-related and 13.1% were baby-related. When breast-related problems were examined, they aligned as follows: nipple being sunken (2.3%), flat nipple (2.3%), and breasts being large (1.7%), respectively. In consequence of mothers' nipple- and baby-related problems, nipple cracks (8.4%) and breast distension (7.8%) was determined.

In a study carried out by Riordan et al. (2001), breastfeeding scores and breastfeeding duration of mothers with high postnatal LATCH scores decreased on the six week follow-up. Since sore nipples pose a risk of early weaning, these mothers should be monitored afterwards (21).

As shown in a study carried out by Ünsal et al. (2005), 38.1% of mothers suffer from breastfeeding problems and one of the expressed problems is baby's unhealthiness and breast refusal. In a study conducted by Akyüz et al. (2007), it was confirmed that 25% of mothers could not breastfeed due to baby-related issues and 42.9% experienced problems related to mothers. Results differing from our study findings may be linked to inclusion criteria. The reason that breastfeeding problems in our study results differed from other studies might be the inclusion of mothers aged 18 years and older, babies weighing 2500 grams and heavier, having 8 or higher 5th minute APGAR scores in our study.

When sub dimensions of the LATCH breastfeeding evaluation tool is examined, the lowest score obtained was determined as 'baby holding position' and 'amount of audible swallowing noted' (Table 1).

Çelebioğlu et al. (2006) calculated the mean total LATCH score as 7.2 ± 1.8 in their study in two hospitals; one baby friendly and the other not baby friendly. In the same study, the lowest score obtained was on the latching on to the breast and baby holding position sub dimensions (19).

In our study, the mean total LATCH score was found to be higher but the results in sub dimensions bore similarities with other research.

Conclusion

It was determined that the mothers' total LATCH score was 8.36±1.57, and there was a statistically significant relationship between LATCH scores and mother's educational background ($F=5.18$, $P<0.05$), gestation count ($F=4.57$, $P<0.05$), 1st minute APGAR score and the two hospitals. Also, it was specified that mothers who delivered their first child had significantly lower LATCH scores. When the LATCH evaluation tool's sub dimensions were examined, it was determined that the lowest scores were on the 'baby holding position' and 'amount of audible swallowing noted' dimensions.

Declaration of Conflicting Interests

The Authors declare that there is no conflict of interest.

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