THE EFFECT OF BIRTH TYPE ON BREASTFEEDING SUCCESS AND INSOMNIA SEVERITY IN PUERPERANT WOMEN

Doğum Şeklinin Emzirme Başarısı ve Annelerdeki Uykusuzluk Şiddetine Etkisi

Sümeyye ALTIPARMAK¹, Ayşe Nur YILMAZ²

ABSTRACT

Objective: This research was carried out to determine the effect of birth type on breastfeeding success and insomnia severity in puerperant women.

Method: The sample of the type of cross-sectional and comparative research, between January and February 2021, to participate in research in a public hospital located in the east of Turkey has created 314 puerperal women who accepted. The data were collected using "Personal Information Form, LATCH Breastfeeding Assessment Tool and Insomnia Severity Index (ISI)". Descriptive statistics, independent groups t test and Pearson correlation analysis were used in data analysis.

Results: It was found that women who vaginally birth (n = 227) had a total score of 8.48 ± 1.47 on the LATCH Breastfeeding Assessment Tool, and an average of 10.44 ± 5.19 on the ISI. These averages were found to be 8.00 ± 2.08 and 8.78 ± 4.46 , respectively, in women who had cesarean birth (n = 87). It was determined that the LATCH Breastfeeding Assessment Tool and ISI total score averages were statistically higher in women who gave birth vaginally than those who delivered by cesarean section (p < 0.05). In addition, it was observed that as the insomnia severity increased in women who had vaginal birth, breastfeeding success decreased significantly (p < 0.05), while there was no statistical relationship between insomnia severity and breastfeeding success in women who gave birth by cesarean section (p > 0.05).

Conclusion and Suggestions: In this study, it was determined that breastfeeding success and insomnia severity in women who gave vaginal birth were higher than women who gave birth by cesarean section.

Keywords: Birth; Birth Types; Breastfeeding Success; Insomnia; Puerperant Women.

ÖZET

Amaç: Bu araştırma, doğum şeklinin emzirme başarısı ve annelerdeki uykusuzluk şiddetine etkisini belirlemek amacıyla yapıldı.

Yöntem: Kesitsel ve karşılaştırmalı tipte olan araştırmanın örneklemini, Ocak – Şubat 2021 tarihleri arasında, Türkiye'nin doğusunda bulunan bir kamu hastanesinde yatan 314 lohusa oluşturdu. Veriler, "Kişisel Tanıtım Formu, LATCH Emzirme Tanılama Ölçüm Aracı ve Uykusuzluk Şiddeti İndeksi (UŞİ)" ile toplandı. Verilerin analizinde tanımlayıcı istatistikler, bağımsız gruplarda t testi ve pearson korelasyon analizi kullanıldı.

Bulgular: Normal doğum yapan kadınların (n=227) LATCH Emzirme Tanılama Ölçeği toplam puan ortalamasının 8.48±1.47, UŞİ toplam puan ortalamasının 10.44±5.19 olduğu ve bu ortalamaların Sezaryen Doğum yapan kadınlarda (n=87) sırasıyla; 8.00 ± 2.08 ve 8.78 ± 4.46 olduğu saptanmıştır. LATCH Emzirme Tanılama Ölçeği ve UŞİ toplam puan ortalamalarının normal doğum yapan kadınlarda sezaryenle doğum yapanlara oranla istatistiksel açıdan daha yüksek olduğu belirlenmiştir (p < 0.05). Ayrıca, normal doğum yapan kadınlarda uykusuzluk şiddeti arttıkça emzirme başarısının anlamlı düzevde azaldığı görülürken (p<0.05), sezaryenle doğum yapan kadınlardaki uykusuzluk şiddeti ve emzirme başarısı arasında herhangi bir istatistiksel ilişki saptanmamıştır (p > 0.05).

Sonuçlar ve Öneriler: Bu araştırmada normal doğum yapan kadınlardaki emzirme başarısı ve uykusuzluk şiddetlerinin sezaryenle doğum yapan kadınlara oranla daha yüksek olduğu belirlenmiştir.

Anahtar kelimeler: Doğum; Doğum Şekli; Emzirme Başarısı; Uykusuzluk; Lohusa.

Makale Geliş / Received: 21.02.2021

Makale Kabul / Accepted:05.04.2021

Sorumlu Yazar: Sümeyye ALTIPARMAK, Research Assistant, Department of Midwifery, Faculty of Health Sciences Inonu University, Malatya / Turkey. E-mail: sumeyye.kandemir@inonu.edu.tr Tel: +90 505 469 9327

¹Research Assistant, Department of Midwifery, Faculty of Health Sciences Inonu University, Malatya / Turkey. ORCID ID: 0000-0002-4759-1210

²Research Assistant, Department of Midwifery, Faculty of Health Sciences Firat University, Elazig / Turkey. ORCID ID: 0000-0003-0489-7639

1. INTRODUCTION

Birth and postpartum period; it is a challenging and delicate process in which the transition to motherhood is experienced, social relations are rearranged and the newborn and mother need health care the most, in addition to important physiological changes for women (Guneri, 2015). Most women describe this process as a positive experience that makes them feel strong, excited and happy. But some women may face different emotions such as desperate, cut off from life, left halfway (Uzun & Dag, 2019). Although vaginal birth is the most preferred method of birth in terms of mother and baby's health, cesarean birth becomes inevitable in some cases (Capik et al., 2016; Simsek & Alpar, 2020). Caesarean birth may be preferred due to conditions such as dystocia, malposition, malpresentation, fetal distress, head-pelvis incompatibility and repeated cesarean section, which may pose a risk for normal birth during pregnancy (Uzun & Dag, 2019). However, care should be taken when deciding on the type of birth and it should not be forgotten that it is a condition that affects the health of the mother and baby in the short and / or long term (Erenel & Cicek, 2018). Compared to vaginal births in cesarean births; Postpartum complications such as hemorrhage, puerperal fever, urinary tract infections, breast problems and thromboembolism are more common. When compared to the newborn, the need for ventilator treatment and the history of hospitalization in the neonatal intensive care unit, such as respiratory distress syndrome, temporary tachypnea of the newborn, and hypoxic respiratory failure, are seen more than in cesarean section births (Amanak & Karacam, 2018). It is also an important variable that can affect the mode of birth, breastfeeding success and insomnia level in mothers (Isik et al., 2018).

Breastfeeding, which plays an important role in the establishment of mother and baby bond, is also an ideal and unique feeding method for the healthy development and growth of babies. Starting breastfeeding as soon as possible after birth is beneficial for both the baby and the mother (Exavery et al., 2015). The World Health Organization recommends breastfeeding within the first half an hour or at the latest one hour after birth (WHO, 2019). Communication with babies of mothers who gave birth through vaginal birth and the time to start breastfeeding are much earlier than those who gave birth by cesarean section. There is a small difference between the duration of breastfeeding in favor of vaginal birth. Basically, cesarean birth does not prevent the mother from breastfeeding and she can breastfeed her babies like those who give vaginal birth. However, puerperant women may encounter some problems while breastfeeding their babies, such as physical complaints and the effects of anesthetics causing breastfeeding to start late (Aydin & Aba, 2019).

One of the other problems seen in the postpartum period is insomnia. Causes of postpartum insomnia include waist, back and hip pain, breast problems, lactation and uterine contractions. This situation may cause problems such as fatigue, anxiety, maternal depression, impaired mother-infant attachment and decreased quality of life. It has been reported that insomnia can negatively affect the recovery of the mother, maternal behavior and baby care from the end of the birth (Golbası & Egri, 2010). Therefore, women for postpartum breastfeeding and insomnia should receive qualified midwifery care. This research was carried out to determine the effect of birth type on breastfeeding success and insomnia severity in puerperant women.

2. METHODS

This study was designed as a comparative cross-sectional and January - February 2021 between serving in a provincial center in the east of Turkey was carried out in public hospitals of maternity services. The universe of the research was composed of puerperant women who gave birth in the specified institutions. The number of puerperant women in the relevant hospital between January and December 2020 is 3544 (N=3544). Sample size in calculation using power analysis; It was determined to be at least 314 puerperant women with 0.05 error level, 95% confidence interval, and the ability to represent 80% universe. The puerperant women who gave birth in the relevant hospital until the specified sample group was reached and met the inclusion criteria were selected using the random sampling method. The research was completed with 314 puerperant women. The study included puerperant women who were able to communicate verbally, who did not occur with assisted reproductive techniques of pregnancy, who were within the first 48 hours of postpartum, who gave birth at term (36 weeks and over), and who did not develop any complications related to the postpartum period in the mother and newborn.

2.1. Data Collection Tools

The data were obtained through "Personal Information Form", "LATCH Breastfeeding Diagnostic Measurement Tool" and "Insomnia Severity Index (ISI)".

Personal Information Form

This form, prepared by the researchers in line with the literature, consists of 14 questions about the sociodemographic characteristics (age, educational status, employment status, spouse's age, spouse's educational status, etc.) and some fertility characteristics (number of pregnancy, type of birth, desire of pregnancy, gender of the baby, time of first breastfeeding, etc.) of the puerperant women included in the study (Durmus & Gurkan, 2020; Yilmaz, 2018; Isik et al., 2018).

Altıparmak S, Yılmaz AN

LATCH Breastfeeding Assessment Tool

LATCH Breastfeeding Assessment Tool was created in 1986 by analogy with the APGAR score system in terms of scoring method (Jensen et al., 1994). It is quick and easy to evaluate. This measuring tool has been developed to diagnose breastfeeding objectively, to detect breastfeeding problems and to make training plans, to create a common language among healthcare professionals and to be used in research. This measurement tool consists of five evaluation criteria, and is a combination of the first letters of the English equivalent of these criteria. Each item is scored between 0 and 2 points. The total score that can be obtained from the scale is 10. The measurement tool has no cut-off point and the higher the LATCH score, the higher the breastfeeding success. LATCH Breastfeeding Assessment Tool reliability and validity of the measurement tool by Yenal and Okumuş in Turkey (Yenal & Okumus, 2003).

Insomnia Severity Index (ISI)

Insomnia Severity Index is a practical measurement tool. Scale items consisting of seven questions are scored between 0 and 4. The scores that can be obtained from the scale range from 0-28. The characteristics that the items of the scale measure are difficulties in transition to sleep, difficulties in maintaining sleep, awakening too early, satisfaction from sleep patterns, disruptions in daily functionality, noticeability of sleep-related disruptions, and the stress level caused by sleep problems. In the index, scores between 0-7 are interpreted as clinically insignificant insomnia, a score between 8-14 as insomnia sub-threshold, a score between 15-21 as clinical insomnia (moderate), 22-28 as clinical insomnia (severe). Morin (2006), which develops, Boysen et al (2010) of by the Turkish version of the scale Cronbach alpha reliability coefficient $\alpha = 0.79$ and that the reported that it has sufficient validity and reliability levels that can be used by researchers in the Turkish sample (Morin 2006; Boysan et al., 2010). In this study, the Cronbach's alpha reliability coefficient of the scale was found 0.841.

2.2. Data Collection

The data were obtained by researchers at the specified clinics between January and February 2021. Face-to-face interview method was used to collect the data of the Personal Information Form and Insomnia Severity Index, and the observation method during breastfeeding was used to evaluate the LATCH breastfeeding assessment tool. The moment of breastfeeding was observed by the researchers within the first 48 hours postpartum. The interviews made by the researcher lasted an average of 25-30 minutes for each participant.

2.3. Data analysis

The data were analyzed using the SPSS 20.0 (SPSS Inc., Chicago, IL, USA) package program. In the evaluation of the data obtained as a result of the research; frequency, percentage, mean, standard deviation, min-max values Pearson correlation and independent groups t test were used. The results were evaluated using a 95% confidence interval, which represents a significance level of 0.05.

2.4. Limitations of the Study

The data of the study, serving in a provincial center in the east of Turkey is limited to patients in public hospitals carried out in the maternity service and can't be generalized to all puerperant women

2.5. Ethical considerations

In order to apply the research, approval has been obtained from the Health Sciences Scientific Research and Publication Ethics Committee of University. (Decision No: 2021/1525). Verbal consent was obtained from all puerperant women before starting the research. The researchers stated that the data obtained to the puerperant women would be published for scientific purposes, without using a name, and they could leave the study at any time. Volunteers were included in the study.

3. **RESULTS**

Table 1. Distribution of the socio-demographic characteristics of the puerperant women (n= 314)

Descriptive Characteristics	Vaginal Birth (n=227)		Cesarean Birth (n=87)		
	Mean±SD* 27.74±5.88		Mean±SD*		
Age (years)			31.00±5.70		
	n	%	n	%	
Employed Status					
Employed	199	87.7	77	88.5	
Unemployed	28	12.3	10	11.5	
Educational Status					
Literate	26	11.4	9	10.3	
Primary school	58	25.6	28	32.2	
Secondary School	52	22.9	11	12.6	
High school	60	26.4	26	29.9	
Universty	31	13.7	13	15.0	
Spouse Employment Status					
Employed	222	97.8	80	92.0	
Unemployed	5	2.2	7	8.0	
Spouse Educational Status					
Literate	11	4.8	5	5.8	
Primary school	56	24.7	19	21.8	
Secondary School	45	19.8	16	18.4	
High school	58	25.6	36	41.4	
Universty	57	25.1	11	12.6	
Family structure					
Nuclear family	173	76.2	68	78.2	
Extended family	54	23.8	19	21.8	
Economic Status					
Good	32	14.1	23	26.4	
Middle	167	73.6	56	64.4	
Bad	28	12.3	8	9.2	
Total	227	100.0	87	100.0	

*SD: Standard Deviation

Table 1 gives the distribution of the socio-demographic characteristics of the puerperant women. It was determined that the average age of the puerperant women who gave vaginal birth was 27.74 ± 5.88 , 26.4% were high school graduates, 87.7% did not work, 76.2% had nuclear family structure and 73.6% had moderate economic status. When the information about the spouses of the puerperant women who gave vaginal birth are examined; It was determined that 25.6% were high school graduates and 97.8% were working. It was determined that the average age of puerperant women who had cesarean birth was 31.00 ± 5.70 , 29.9% were high school graduates, 88.5% did not work, 78.2% had nuclear family structure and 64.4% had moderate economic status. When the information about the spouses of the puerperant women who gave birth by cesarean section is examined; It was determined that 41.4% were high school graduates and 92% were working.

	Vaginal Birth (n=227)		Cesarean Birth (n=87)	
	n	%	n	%
Number of Pregnancy				
Primigravida	52	22.9	9	10.3
Multigravida	175	77.1	78	89.7
Desired Status of Pregnancy				
Yes	186	81.9	74	85.1
No	41	18.1	13	14.9
Receiving Training on Breastfeed	ing in the Prena	tal Period		
Yes	49	21.6	15	17.2
No	178	78.4	72	82.8
Baby's Gender				
Girl	115	50.7	52	59.8
Male	112	49.3	35	40.2
Time to First Breastfeed				
Within the first half hour	99	43.6	17	19.6
Half an hour to an hour	93	41.0	27	31.0
An hour later	35	15.4	43	49.4
The Person Received Support Du	ring Breastfeedi	ng		
No Support	116	51.1	36	41.4
Spouse	28	12.3	9	10.3
Friend	-	-	2	2.3
Relative	34	15.0	19	21.9
Family (Mother, Child/s)	49	21.6	21	24.1
Total	227	100.0	87	100.0

Table 2 shows the distribution of obstetric and postpartum characteristics of the puerperant women. It was determined that 77.1% of the puerperant women who gave vaginal *birth* were multigravida, 81.9% wanted pregnancy and 50.7% of the babies were female. It was determined that 78.4% of the puerperant women did not receive breastfeeding training in the prenatal period, although 43.6% of them breastfeed their babies within the first half hour. It was determined that 89.7% of the puerperant women who had cesarean *birth* were multigravida, 85.1% wanted pregnancy and 59.8% of them had a girl. It was found that 82.8% of the puerperant women did not receive breastfeeding training in the prenatal period, and 49.4% breastfeed their babies one hour after birth.

Table 3. Comparison of LATCH breastfeeding assessment tool and ISI total scores in vaginal birth and
cesarean section groups (n= 314)

	Vaginal Birth (n=227) Cesarean Birth (n=87)		Test [*] and p Value	
Scales	Mean±SD	Mean±SD	t	р
LATCH	8.48±1.47	8.00±2.08	2.332	0.020
ISI	10.44±5.19	8.78±4.46	2.636	0.009

* t test in independent groups, SD: Standard Deviation

Table 3 shows the comparison of the LATCH Breastfeeding Assessment Tool and ISI total score averages of the puerperant women in the vaginal birth and cesarean birth groups. In the vaginal birth group, LATCH Breastfeeding Assessment Tool total score average was 8.48 ± 1.47 , ISI total score average was 10.44 ± 5.19 and these averages were, respectively, in the cesarean birth group; It was found to be 8.00 ± 2.08 and 8.78 ± 4.46 . As a result of the statistical evaluation; LATCH Breastfeeding Assessment Tool and ISI total score were found to be statistically higher in women who gave vaginal birth (p <0.05).

Table 4. The relationship between the LATCH breastfeeding assessment tool and ISI scores of puerperant
women in vaginal and cesarean birth groups (n= 314)

	Vaginal Birth (n=227)	Cesarean Birth (n=87)
	ISI	ISI
LATCH	r= - 0.254	r= - 0.187
	$p=0.000^{*}$	p=0.083

r=Pearson Correlation, *p<0.001

In Table 4, the relationship between the LATCH Breastfeeding Assessment Tool and ISI scores of the puerperant women in the vaginal and cesarean birth groups is given. It was determined that as the severity of insomnia increased, breastfeeding success decreased in women who had vaginal birth. There was no significant relationship between LATCH Breastfeeding Assessment Tool and ISI in women who delivered cesarean section (p > 0.05).

4. DISCUSSION

Postpartum period is a period in which there are many physical and psychological changes for mother and baby. During this period, the mode of birth is an important factor affecting breastfeeding success and insomnia levels in puerperant women. (Işik et al., 2018; Durmus & Gurkan, 2020). The results of this study, which was conducted to determine the effect of the mode of birth on breastfeeding success and insomnia severity in puerperant women, were discussed with the relevant literature.

The first half hour after birth is the period when the baby's sucking reflex is strongest and the baby is active. Therefore, WHO recommends breastfeeding within the first half an hour or at the latest one hour after birth (Onat, 2015; WHO, 2019). According to the TDHS 2018 data 71% of breastfed infants in Turkey reported within the first 1 hour (TDHS, 2019). In this study, it was found that 43.6% of the puerperant women who gave vaginal birth very and 19.5% of the puerperant women who gave birth by cesarean breastfeed their babies in the first half hour (Table 2). Guler and Yanikkerem stated that the pain after vaginal birth is less than cesarean birth and 85.9% of women who have vaginal birth breastfeed earlier, and 74.3% of puerperant women may experience breastfeeding problems after cesarean section (Guler & Yanikkerem, 2018). In another study, it was found that 88.9% of women who gave vaginal birth started breastfeeding within the first hour after birth, while 94.4% of women who gave birth by cesarean started breastfeeding after the first hour after birth (Işik et al., 2018). In the study of Zanardo et al., It was found that the prevalence of early breastfeeding was higher in puerperant women who had vaginal birth compared to puerperant women who gave birth by cesarean section, and that the time of first breastfeeding took longer time in newborns born by cesarean than those who gave vaginal birth (Zanardo et al., 2010). In a study by Chen et al., It was found that women who gave birth by cesarean section had a lower rate than those who delivered vaginally (Chen et al., 2018). In another study, it was found that 73.3% of mothers who gave vaginal birth breastfeed their babies in the first half hour, and 90% of mothers who had cesarean operation took more than one hour (Canturk & Kostak, 2020). It was found that 73.3% of the mothers who had vaginal birth breastfeed within the first half hour, and 90% of the mothers who had cesarean section breastfeed for more than one hour (Canturk & Kostak, 2020). In the studies conducted, it was observed that mothers who had vaginal birth started breastfeeding earlier than mothers who gave birth by cesarean section, in accordance with the findings of this study. Babies may face with less risk of experiencing the benefits of breastfeeding after cesarean birth, namely, more uncomfortable sucking due to the painful mother, later sucking, and a decrease in the frequency and duration of breastfeeding (Bal et al., 2013). In a study conducted; women who gave birth by cesarean also claimed that the operation caused fright, fear and anxiety, and after the birth, the difficulties of both the postpartum period and the surgical operation caused the mother-baby attachment process to be prolonged as the mother's interest in her baby could be subordinated (Cankaya & Ratwisch, 2020). In Turkey, it is almost one out of every two women caesarean section and consequently is exposed to adverse maternal and neonatal anesthesia and surgical intervention (Balci & Oskay, 2020).

In our study, the total mean score of the LATCH Breastfeeding Assessment Tool was found to be 8.48 \pm 1.47 and 8.00 \pm 2.08 for the mothers who gave birth by cesarean section. In addition, it was determined that the total score average of the LATCH Breastfeeding Assessment Tool was statistically higher in women who gave birth vaginally (p <0.05; Table 3). In the study conducted by Cetisli et al., It was found that the total LATCH Breastfeeding Assessment Tool score average of mothers who gave vaginal birth was 7.83 ± 1.88 , and that of mothers who had cesarean section was 7.04 ± 2.31 (Cetisli et al., 2018). In the study conducted by Turan and Bozkurt with primipara mothers, it was determined that the average score obtained from the LATCH Breastfeeding Assessment Tool for mothers who gave vaginal birth was 8.68 ± 1.51 , while mothers who gave birth by cesarean section were 6.95 ± 1.98 (Turan & Bozkurt, 2020). In the studies examining the effect of birth type on breastfeeding in the literature, the results that the breastfeeding success of mothers who gave vaginal birth is higher than mothers who gave birth by cesarean section are in line with the findings of our study (Kilci, 2014; Işik, et al., 2016). On the other hand, in some studies, no significant differences were found in terms of breastfeeding success according to birth type (Bolukbası, 2016; Ince et al., 2017; Tokat et al., 2015). It is thought that making evaluations of breastfeeding after birth at different measurement tools and at different time intervals may cause these variable results. The differences in breastfeeding success due to birth types are explained by a number of theories (Isik, et al., 2018). For example; Pain at the incision site during cesarean birth and the mother having to take care of her own care may cause the mother and baby to meet late and delay breastfeeding (Simsek & Alpar, 2020). In addition, one of the issues emphasized in recent years is hormonal factor changes between normal birth and cesarean birth (Karakoyunlu et al., 2019). It is stated that the natural

oxytocin and prolactin release that occurs during the labor of puerperant women who have vaginal birth has a significant positive effect on breastfeeding (Brown et al., 2015). It is emphasized that the differences in hormone release encountered during cesarean birth may have a negative effect on breastfeeding success (Zanardo et al., 2010). In Yilmaz's study, it was found that the LATCH total score average was 9.34 ± 1.13 in the planned cesarean section group whose labor started spontaneously, and 6.96 ± 1.12 in the planned cesarean section group without labor. In addition, in the same study, it was emphasized that waiting for the onset of natural labor in cesarean birth can increase the success of breastfeeding (Yilmaz, 2018). When evaluated from this point of view, it is thought that hormonal factors may contribute to the high breastfeeding success achieved in this study by puerperant women who gave vaginal birth.

It is stated in the literature that postpartum mothers often experience sleep problems. (Yildiz & Kucuksahin, 2011). During this period, sleep is split and inefficient, characterized by multiple and frequent awakenings. For new mothers, sleep is disturbed regardless of the type of baby feeding, the location of the baby, or the extent of support provided by nightcare (Barger et al., 2013). In the study conducted by Aksu et al., It was determined that the most common problems reported by mothers during the first six weeks were fatigue (77.5%) and sleep disturbances (76.0%) (Aksu et al., 2017). In our study, it was determined that the mean ISI total score of mothers who gave vaginal birth was 10.44 ± 5.19 , and that of mothers who delivered cesarean section was 8.78 ± 4.46 (Table 3). A score between 8 and 14 is defined as the lower threshold of insomnia according to the ISI assessment tool. When evaluated from this point of view, it is seen that puerperant women who gave birth by both vaginal birth and cesarean section experience insomnia. In addition, in this study, it was found that the mean ISI total score was statistically higher in women who gave vaginal birth (p < 0.05; Table 3). On the other hand, Tulek's study stated that 79.8% of puerperant women who had vaginal birth and 78.2% of puerperant women who had cesarean section had insomnia and found that there was a similar level of insomnia in both births (Tulek, 2019). On the other hand, another study found that birth-related factors such as parity, mode of birth (cesarean or vaginal), postpartum breastfeeding were not associated with the incidence of postpartum insomnia (Drozdowicz-Jastrzębska et al., 2017). However, in this study, it was determined that puerperant women who had vaginal birth had more insomnia in the postpartum period compared to puerperant women who delivered by cesarean (p < 0.05; Table 3). This result can be interpreted as the mode of birth is an important factor in the level of insomnia in puerperant women. It is thought that the severity of insomnia experienced in puerperant women who gave vaginal birth determined in this study may have been affected by the energy spent during vaginal birth and the long birth process. In addition, in this study, it is a striking finding that as the severity of insomnia increases, breastfeeding success decreases significantly (p < 0.001; Table 4). This result shows that the importance of insomnia severity should be increased in puerperant women who give vaginal birth. Managing the high severity of insomnia compared to cesarean birth in puerperant women with vaginal births (Table 3) may further increase the high breastfeeding success achieved in puerperant women who have vaginal births. In a study, it was found that sleep satisfaction and duration decreased with birth and reached the lowest level in the first 3 months after birth. It has also been stated that breastfeeding is associated with a slight decrease in maternal sleep satisfaction and duration (Richter 2019). While breastfeeding provides many advantages for the newborn and mother, it also causes postpartum sleep loss and fatigue (Cangol 2014). When evaluated from this perspective, it can be concluded that reducing the severity of insomnia in puerperant women who have vaginal birth will further increase the current high breastfeeding success.

CONCLUSION

In this study, it was determined that puerperant women generally had insomnia and breastfeeding success and insomnia severity in puerperant women who gave vaginal birth were higher than puerperant women who gave birth by cesarean section. In addition, it was observed that breastfeeding success decreased significantly as the severity of insomnia increased in women who gave vaginal birth. It should not be forgotten that the mode of birth is a phenomenon that affects the health of the mother and baby. For this reason, with qualified care and training programs provided starting from the preconceptional period, it can be ensured that women gain awareness of normal birth and possible breastfeeding problems that may occur with cesarean birth can be reduced. In addition, the management and support of postpartum insomnia severity by healthcare professionals can increase the compliance of puerperant with breastfeeding and postpartum process.

ACKNOWLEDGEMENTS

We would like to thank the puerperae women who participated and completed this questionnaire. In addition, we would like to thank the because of her consulting Associate Professor Yesim AKSOY DERYA.

CONFLICTS OF INTEREST

The authors have no conflicts of interest to disclose.

FUNDING

The financial support for this study was provided by the investigators themselves.

AUTHORSHIP CONTRIBUTIONS

Concept: S.A., A.N.Y. Design: S.A., A.N.Y. Data Collection or Processing: S.A., A.N.Y. Analysis or Interpretation: S.A., A.N.Y. Literature Search: S.A., A.N.Y. Writing: S.A., A.N.Y. The authors contributed equally.

REFERENCES

- Aksu, S., Varol, F.G., & Sahin, N.H. (2017). Long-term postpartum health problems in Turkish women: prevalence and associations with self-rated health. Contemporary Nurse: A Journal for the Australian Nursing Profession, 53(2), 167-181.
- Amanak, K., & Karacam, Z. (2018). Determination of the problems experienced by the women who gave birth by cesarean delivery during early postpartum period concerning self-care and baby care. Journal of Tepecik Training and Research Hospital, 28(1): 17-22.
- Aydin, D., & Aba, Y. (2019). The relationship between mothers' health literacy levels and their perceptions about breastfeeding self-efficacy. Dokuz Eylul University Faculty of Nursing Electronic Journal, 12(1), 31-39. Retrieved from <u>https://dergipark.org.tr/tr/pub/deuhfed/issue/53195/705940</u>
- Bal, M.D., Yılmaz, S.D., Beji, N.K. (2013). Kadınların sezaryen doğum tercihleri. Florence Nightingale Nursing Journal, 21(2), 139-146.
- Balci E.G., Oskay Ü.Y. (2020). Sezaryen doğumlarda uygulanan anestezi yöntemlerinin, annenin ve yenidoğanın doğum sonu dönem konforuna ve uyumuna etkileri. Journal of Nursing Science, 3(3), 1-8.
- Barger M.K., Caughey A.B., & Lee K.A. (2013) Evaluating Insomnia During Pregnancy and Postpartum. In: Attarian H., Viola-Saltzman M. (eds) Sleep Disorders in Women. Current Clinical Neurology. Humana Press, Totowa, NJ. <u>https://doi.org/10.1007/978-1-62703-324-4_15</u>
- Bolukbası, H. (2016). The effect of postpartum depression on breastfeeding self-efficacy, breastfeeding success and nutritional status in the postnatal six-month period. Department of Nutrition and Dietetics. Master Thesis. Gazi University Institute of Health Sciences, Ankara.
- Boysan, M., Gulec, M., Besiroglu, L. & Kalafat, T. (2010). Psychometric properties of the Insomnia Severity Index in Turkish sample. Anatolian Journal of Psychiatry, 11, 248-252.
- Brown, A., Rance, J., & Bennett, P. (2016). Understanding the relationship between breastfeeding and postnatal depression: the role of pain and physical difficulties. Journal of advanced nursing, 72(2), 273–282. https://doi.org/10.1111/jan.12832
- Cankaya, S., & Ratwisch, G. (2020). The effect of reflexology on lactation and postpartum comfort in caesareandelivery primiparous mothers: a randomized controlled study. International Journal of Nursing Practice, 26(3), e12824.
- Canturk, D., & Kostak, M.A. (2020). Breast-feeding self-efficacy levels of mothers undergoing vajinal birth or cesarean operation. Mersin University Journal of Health Sciences, 13(3): 382-394.
- Capik, A., Sakar, T., Yildirim, N., Karabacak, K., & Korkut, M. (2016). Determining the satisfaction levels of the mothers according to their mode of birth Anatolian Journal of Nursing and Health Sciences, 19(2), 92-99.
- Cetisli, N.E., Arkan, G., & Top, E.D. (2018). Maternal attachment and breastfeeding behaviors according to type of delivery in the immediate postpartum period. Revista da Associacao Medica Brasileira (1992), 64(2), 164–169. https://doi.org/10.1590/1806-9282.64.02.164
- Chen, C., Yan, Y., Gao, X., Xiang, S., He, Q., Zeng, G., Liu, S., Sha, T., & Li, L. (2018). Influences of cesarean delivery on breastfeeding practices and duration: a prospective cohort study. Journal of Human Lactation: Official Journal of International Lactation Consultant Association, 34(3), 526-534. <u>https://doi.org/10.1177/0890334417741434</u>

- Chien, L. Y., & Tai, C. J. (2007). Effect of delivery method and timing of breastfeeding initiation on breastfeeding outcomes in Taiwan. Birth (Berkeley, Calif.), 34(2), 123-130. https://doi.org/10.1111/j.1523-536X.2007.00158.x
- Drozdowicz-Jastrzębska, E., Skalski, M., Gdańska, P., Mach, A., Januszko, P., Nowak, R. J., Węgrzyn, P., Wielgoś, M., & Radziwoń-Zaleska, M. (2017). Insomnia, postpartum depression and estradiol in women after delivery. Metabolic brain disease, 32(6), 1913-1918. <u>https://doi.org/10.1007/s11011-017-0079-0</u>
- Durmus A., & Gurkan, Ö.C. (2020). Evidence based traditional and complementary medicine applications in early postpartum period breast problems. Ordu University Journal of Nursing Studies, 3 (2), 185-192. https://doi.org/10.38108/ouhcd.761903
- Erenel, A.S., & Cicek S. (2018). Effect of type of birth on the health of mother and newborn. Suleyman Demirel University Journal of Health Sciences, 9(2), 123-129. <u>https://doi.org/10.22312/sdusbed.406819</u>
- Exavery, A., Kanté, A. M., Hingora, A., & Phillips, J. F. (2015). Determinants of early initiation of breastfeeding in rural Tanzania. International breastfeeding journal, 10, 27. <u>https://doi.org/10.1186/s13006-015-0052-</u> <u>7</u>
- Golbası, Z., & Egri G. (2010). Traditional practices to mother care in postpartum period. Cumhuriyet Medical Journal, 32: 276-282.
- Guler E.S., & Yanikkerem, D. (2018). The views of women towards the mode of delivery and vaginal birth after caesarean. STED / Journal of Continuing Medical Education, 27(1), 27-36. Retrieved from <u>https://dergipark.org.tr/tr/pub/sted/issue/36512/414205</u>
- Güneri, S.E. (2015). Evidence Based Practices in Early Postpartum Period. Gumushane University Journal of Health Sciences, 4(3), 482-496. Retrieved from https://dergipark.org.tr/tr/pub/gumussagbil/issue/23834/253907
- Ince T., Aktas G., Aktepe N., & Aydin A. (2017) Evaluation of the factors affecting mothers' breastfeeding selfefficacy and breastfeeding success. Izmir Dr. Behcet Uz Journal of Pediatrics, 7(3): 183-190.
- Işik, G., Cetisli, N., & Baskaya, V. (2018). Postpartum pain, fatigue levels and breastfeeding self-efficacy according to type of birth. Dokuz Eylul University Faculty of Nursing Electronic Journal, 11(3), 224-232. Retrieved from <u>https://dergipark.org.tr/tr/pub/deuhfed/issue/46781/586630</u>
- Işik, Y., Dag, Z. O., Tulmac, O. B., & Pek, E. (2016). Early postpartum lactation effects of cesarean and vaginal birth. Ginekologia polska, 87(6), 426–430. <u>https://doi.org/10.5603/GP.2016.0020</u>
- Jensen, D., Wallace, S., & Kelsay, P. (1994). LATCH: a breastfeeding charting system and documentation tool. Journal of obstetric, gynecologic, and neonatal nursing: JOGNN, 23(1), 27–32. https://doi.org/10.1111/j.1552-6909.1994.tb01847.x
- Karakoyunlu, Ö., Apay, S.E., & Gurol, A. (2019). The effect of pain, stress, and cortisol during labor on breastfeeding success. Developmental psychobiology, 61(7), 979–987. https://doi.org/10.1002/dev.21873
- Kilci H.(2014). The relationship between early postpartum breastfeeding success and late postpartum breastfeeding self-efficacy and breast problems. Department of Midwifery. Master Thesis. Adnan Menderes University Institute of Health Sciences, Aydin
- Morin, C.M., LeBlanc, M., Daley. M., Gregoire, J.P., Mérette C. (2006). Epidemiology of insomnia: prevalence, self-help treatments, consultations, and determinants of helpseeking behaviors. Sleep Med, 7, 123-130.
- Onat G. (2015). After Natural Birth, Three Components of Natural Breastfeeding: Breast Crawl, Kangaroo Mother Care, Biological Nurtuting. Journal of Education and Research in Nursing, 12 (2): 78-84.
- Richter, D., Krämer, M. D., Tang, N., Montgomery-Downs, H. E., & Lemola, S. (2019). Long-term effects of pregnancy and childbirth on sleep satisfaction and duration of first-time and experienced mothers and fathers. Sleep, 42(4), zsz015. <u>https://doi.org/10.1093/sleep/zsz015</u>
- Simsek, H.E., & Ecevit, Ş.A. (2020). Post-cesarean section pain and nursing care. Istanbul Gelişim University Journal of Health Sciences, (11), 267-278.
- Tokat M.A., Sercekus P., Yenal K., & Okumus H. (2015) Early postpartum breastfeeding outcomes and breastfeeding self-efficacy in turkish mothers undergoing vaginal birth or cesarean birth ith different types of anesthesia. International Journal of Nursing Knowledge, 26 (2): 73-79.
- Tulek, N. (2019). Determining the scope of postpartum health problems and care services. Department of Midwifery. Master Thesis. Adnan Menderes University Institute of Health Sciences, Aydin.
- Turan, A., & Bozkurt, G. (2020). Effects of delivery method on breastfeeding success in primiparous mothers. Archives of Health Science and Research, 7(1): 60-5.
- Turkey Demographic and Health Survey, Hacettepe University Institute of Population Studies. (2019). Turkey
Demographic and Health Survey Report 2018
http://www.hips.hacettepe.edu.tr/tnsa2018/rapor/TNSA2018 ana Rapor.pdfSurvey Report 2018

- Uzun, B, Dag, E. (2019). Women's preferences relating mode of delivery the role of midwife. Health Care Academician Journal, 6(2), 87-90. Retrieved from https://dergipark.org.tr/en/pub/sagakaderg/issue/46295/522819
- World Health Organisation. Early initiation of breastfeeding to promote exclusive breastfeeding 2019. https://www.who.int/elena/titles/early_breastfeeding/en/
- Yenal, K., & Okumus, H. (2003). A study examining the reliability of the LATCH breastfeeding assessment tool. Research and Development in Nursing Journal, 5(1): 38-44.
- Yildiz, H., & Kucuksahin, N. (2011). Postpartum problems and care needs of mothers living in rural area. Turkish Journal of Family Practice, 15(4): 159-166.
- Yilmaz, A.N. (2018) Comparison of planned caesarean sections performed after labor begins with those performed before labor begins in terms of postpartum breastfeeding and maternal attachment levels. Department of Midwifery. Master Thesis. Inonu University Institute of Health Sciences, Malatya.
- Zanardo, V., Svegliado, G., Cavallin, F., Giustardi, A., Cosmi, E., Litta, P., & Trevisanuto, D. (2010). Elective cesarean delivery: does it have a negative effect on breastfeeding?. Birth (Berkeley, Calif.), 37(4), 275–279. https://doi.org/10.1111/j.1523-536X.2010.00421.x