

Original Article

Traditional Practices of Turkish Mothers at Breast Engorgement during Postpartum Period

Gulnaz Karatay PhD, RN

Professor, Munzur University, School of Health Science, Tunceli, Turkey

Nazan Gurarslan Baş, PhD

Assist. Prof. Munzur University, School of Health Science, Tunceli, Turkey

Ilksen Orhan Ergin, McS, RN

Munzur University, School of Health Science, Tunceli, Turkey

Correspondence: Gulnaz Karatay PhD, RN, Professor, Munzur University, School of Health Science, Tunceli, Turkey 62000 e-mail: gkaratay@gmail.com

Abstract

Purpose: The study aims to assess the traditional practices resorted by mothers to treat breast engorgement.

Methods: The sample of this descriptive study consisted of 150 mothers who live in the east of Turkey and have 0-6 month old baby. Mothers were selected with the purposive sampling method. Questionnaire developed by researchers was used for data collection. Data obtained using face-to-face interview technique were analyzed in SPSS software using numbers and percentages.

Results: Of the mothers, 83.6% stated that they did not receive a breast care counselling before the birth, 69.4% had c-section delivery, 60.0% had breast problems in the postpartum period, and the majority had applied traditional methods to cope with these problems. Among these methods, lansolin pomade was the most frequently used method (24.8%), followed by the excess milk removal by pump or manually (21.9%), applying her own milk on nipples (12.4%), olive oil application (11.4%), warm water application (9.5%), and almond/walnut oil application (5.7%).

Discussion: The majority of the mothers has had breast engorgement problems during the postpartum period, and the majority has applied traditional practices to treat these problems.

Keywords: Breast engorgement, midwifery, nursing, traditional healing.

Introduction

Women experience many physiological changes after pregnancy in the postpartum period. The most significant changes are observed in the reproductive organs and breasts (Taşkın, 2015 p. 455-512). Breast engorgement may occur after birth due to elevated levels of oxytocin hormone. Breast engorgement has been defined as "the swelling and distension of the breasts, usually in the early days of initiation of lactation, caused by vascular dilation as well as the arrival of the early milk (Mangesi, & Zakarija-Grkovic 2016).

Since the breast engorgement emerge as a result of accumulation in breasts, acquiring correct

breastfeeding skills during the first week after childbirth is crucial for mother's adaptation and successful breastfeeding (Zhou, 2013). However, edema, distension, and pain in breasts due to fullness can prevent breastfeeding. This can lead to a sense of failure, difficulty of adaptation, and some other negative experiences in motherhood roles. Untreated breast engorgement can lead to pathological breast engorgement, which can result in nipple fissures, bleeding, nipple rupture, mastitis, puerperal fever, and termination of the lactation (Australian Breastfeeding Association, 2014). Nipple problems, which can become a rather painful experience, are not adequately addressed since they are considered normal.

Some studies have shown that mother's awareness and management of breast engorgement is inadequate (Sharma, 2013). At the same time, it is neglected in post-natal nursing care. Mothers who do not have enough medical support in this process sometimes prefer self-treatment when they have breast problems.

To treat breast engorgement, mothers resort to some non-pharmacological traditional methods. Some of these methods are based on rational experience. When the literature is examined, it can be seen that Gua-Sha Therapy (Chiu et al., 2010), cabbage leaves (Lim et al., 2015; Saini, & Saini, 2010), hot and cold compresses (Arora et al., 2008) have been used to treat breast engorgement. However, methods such as milk expression, acupuncture, massage are also applied (Mangesi, & Dowswell, 2010).

Nurses can evaluate the traditional methods used by women to treat breast engorgement, and encourage them to use rational and useful methods. For example, some methods, such as Gua-Sha Therapy, cabbage leaf, warm showering, milking, etc., do not contradict with medical information and can be used to relieve breast tissue. In addition, scientific studies supporting some of these methods have been conducted and the methods have been found to be useful (Lawrence, & Lawrence, 2005 p. 278-281; Mangesi, & Zakarija-Grkovic, 2016; Pustotina, 2016; Saini, & Saini, 2010; Snowden et al., 2007). Studies evaluating the attitudes and practices of women regarding breast engorgement and treatment in early postpartum period in Turkey are very limited. Particularly in the east of Turkey, which has a multicultural structure and has thousands of years of Anatolian tradition, some traditional practices are also still in use, despite the widespread use of modern medicine. This study aims to evaluate the traditional methods used by women in the early postpartum period in the treatment of breast engorgement in the east of Turkey. Understanding these methods is important for nurses to determine the need for care and counseling of women in prenatal and postnatal periods.

Methods

Design

This study was a descriptive field study that evaluating cultural practices of women at breast engorgement.

Sample and setting

The sample of the study consisted of 150 mothers having a 0-6-month-old baby in the selected by the purposive sampling method (Polit, & Beck 2013 p.149-170). Since the Province of Tunceli is one of the smallest provinces and has a fertility below the average in Turkey, it was difficult to find mothers who are in the period of postpartum period. For this reason, mothers with children between 0-6 months were included in the study. The sample of the study was selected among the mothers who admitted together with their babies for using health care services such immunization and examination in three Family Health Centers in the province of Tunceli.

Data Collection Instrument: The "Determining the Traditional Practices of Women in Early Postpartum Period to Treat Breast Engorgement" questionnaire, which was developed by the researchers in line with the literature, was used as the data collection tool. The questionnaire included 5 items on demographic characteristics, 10 items on factors related to breast engorgement, and 8 items on breast engorgement and treatment. Open-ended questions were asked about the traditional practices used by the mothers in the treatment of breast engorgement.

Data collection: The study data were collected between June and September 2016 using the face-to-face interview technique on mothers of 0-6 month old babies, using primary care services. Interviews were adjusted according to the vaccination days of Family Health Centers. The interviews conducted by the researchers with the mothers were held in an appropriate room of the institution, with an average of 15 minutes per interview.

Ethical consideration: This study was approved by the ethics committee of Fırat University (No:17886791-050.99-E. 2630) in accordance with the Declaration of Helsinki Research Principles.

Data Analysis: After the obtained data was transferred to the computer-aided SPSS database, the data were evaluated using numbers and percentages.

Results

Of the mothers, 63.9% was in the 19-24 age group, 48.7% was at least college graduate. Of the mothers, 18.7% has insufficient income, and 8.7% had no social security.

Of the mothers, 56.0% had delivered once, 69.4% had delivered with c-section, 78.6% had received antenatal care, 59.9% had fullness in breasts in the prenatal period, 17.3% had flat or inverted nipple problem, 83.3% had not received consultancy regarding breast problems before birth, 12.0% had started breastfeeding after 4 hours of birth, the majority (87.3%) had breastfed with 2 hours intervals or more frequently in the first week, and 10.0% had breastfed with 5 hours or longer intervals. In addition, only 32.4% of the mothers had received breastfeeding training in the prenatal period (Table 1).

Table 1. Some Characteristics of Mothers Related to Breast Engorgement (n = 150)

	n	%
Number of births		
1	84	56.0
2	54	36.0
3 and over	12	8.0
Delivery type		
Vaginal	46	30.6
C-section	104	69.4
Prenatal care status		
Received care	118	78.6
Didn't receive care	32	21.4
Breast problems experienced in the prenatal period (n = 75)		
Fullness in the breasts	45	59.9
Flat and inverted nipple	13	17.3
Large nipples	2	2.6
Small nipples	15	20.0
Consultancy status for breast problems in prenatal care		
Received consultancy	26	16.4
Received no consultancy	124	83.6
Time to start breastfeeding after birth		
In the first half hour	93	60.7
An hour later	34	21.3
After 2-3 hours	5	2.7
4 hours and after	18	12.0
Breastfeeding frequency in the first week		
At intervals of 2 hours or more	128	87.3
With 3-4 hours of intervals	7	4.7
With intervals of 5 hours or more	15	10.0
Breastfeeding training in prenatal care (n = 148)		
Received training on breastfeeding	49	32.4
Didn't receive training on breastfeeding	101	67.6

Table 2. Breast Engorgement Status of the Mothers and Practices Applied (n = 150)

	n	%
Breast engorgement status in postpartum period		
Experienced	90	60.0
Not experienced	60	40.0
Breast problems in postpartum period (n=207)*		
Fullness/swelling/fever	63	58.2
Nipple fissure	62	57.3
Pain	49	46.7
Inverted nipple	13	12.6
Bleeding	10	9.7
Breast infection	10	7.7
Admitting to a doctor for breast problems		
Yes	53	35.3
No	97	64.6
Prescription drug use status for breast problems (n = 53)		
Used	22	41.5
Not used	31	58.5
The treatments applied in the house except on doctor's advice (n=105)		
Applying Lansolin/herbal cream	26	24.8
Milk removal using pump or manually	23	21.9
Applying her own milk on the nipples	13	12.4
Olive oil application	12	11.4
Warm showering	10	9.5
Almond/walnut oil application	6	5.7
Applying quince seeds solved in water	3	2.9
Frequent breastfeeding	2	1.9
Applying St. John's wort oil	2	1.9
Drinking cumin/fennel tea	2	1.9
Wrapping boiled cabbage leaf on breasts	2	1.9
Applying steeped tea	2	1.9
Breast massage	1	0.9
Wrapping nylon for humidification	1	0.9
Application time of the traditional methods (n=84)		
1-2 days	14	16.6
3-4 days	25	29.8

5-6 days	10	11.9
7 days and more	35	41.7

Breast relieve status of traditional practices (n=84)

Relieved	79	94.0
Not relieved	5	6.0

Where traditional practices were learned (n = 84)

The family (grandmothers, mother, aunts)	48	57.1
Neighbor/friend	26	30.9
Internet	10	11.9

Of the mothers, 60.0% stated that they had breast engorgement in the postpartum period. Of the mothers who had problems, 58.2% had fullness/swelling/fewer in their breasts, 57.3% had nipple fissures, 46.7% had breast pain, 12.6% had inverted nipples, and 9.7% had bleeding on nipples in the first 10 days after birth. Of the mothers, 35.3% had sought medical attention due to these problems, and 41.5% stated that they had used prescription drugs. It was observed that the mothers have resorted to some traditional treatment methods to relieve the problems of the breasts after birth. Applying Lansolin pomade (24.8%), use of pump for excess milk (21.9%), applying her own milk on nipples (12.4%), olive oil application (11.4%), warm water application (9.5%), and almond/walnut oil application (5.7%) were among the most frequently used practices. In addition, practices such as applying steeped quince seeds (3 people), frequent breastfeeding (2 people), applying St. John's wort oil (2 people), drinking cumin/fennel tea (2 people), wrapping steamed boiled cabbage leaf (2 people), applying steeped tea (2 people), breast massage (1 person), humidification by wrapping nylon (1 person) were also observed. The majority of the mothers who applied traditional practices (41.7%) stated that they applied these practices more than seven days, and 94.0% stated that these practices relieved the breasts. Of the mothers, 57.1% had learned the practices to relieve breast engorgement from the elder family members, 30.9% from the neighbors/friends, and 11.9% from the Internet (Table 2).

Discussion

Breast engorgement, which affects numerous women in the postpartum period, also constitutes

a significant obstacle in terms of the breastfeeding success. For this reason, midwifery and nursing services are important in this respect both before and after the birth. The results of this study, which was planned to assess the practices of women to treat breast engorgement problems experienced during the postpartum period, are thought to be useful for planning the training and counseling roles of health workers, especially midwives and nurses.

Breast engorgement occurs as a result of accumulation of milk, blood and other liquids in breast tissue in the first week after birth. For this reason, the breasts become heavy and big. Breast care and use of proper breastfeeding techniques is important to prevent these complications in the postpartum period. It is known that the type of delivery is one of the factors affecting the time to start breastfeeding. Breastfeeding time and frequency is sometimes delayed especially in c-section delivery, increasing the risk of breast engorgement. In this study, a significant number of mothers suffering from breast engorgement problems stated that they had cesarean delivery. In fact, the cesarean rate in the province of Tunceli, where this study was carried out, is above the average of Turkey. According to the data of Public Hospitals Statistical Yearbook of Turkey (2014), the cesarean rates of 2014 was 52.0% in Turkey. In this study, however, 69.4% of the mothers in the postpartum had stated that they had cesarean section delivery. These rates are quite high for both Turkey and Province of Tunceli. Akyuz et al. (2007) reported in their study that mothers who gave birth through normal delivery could breastfeed in the first hours (48.9%), whereas mothers who had c-

section could breastfeed in 2-4 hours after birth (56.3%). In a study by Gungor et al. (2004), it was stated that breastfeeding (42.9%) and breast problems (31.3%) were among the problems experienced in the early period after cesarean delivery. Sahin et al.(2013) have stated in their study that mothers who delivered through c-section were 1.7 times more likely to have a nipple fissure problem compared to vaginal deliveries.

The starting time and frequency of breastfeeding are important to prevent breast engorgement. Even though more than half of the mothers expressed that they breastfed in half an hour, it takes more time for the mother to be able to get over the effect of the anesthetic agent, and take her baby in her arms after a c-section delivery. In the study findings, it was seen that this period is 4 hours or longer in some of the mothers. In order to prevent breast engorgement, the baby should be actively breastfed 8-12 times a day in the first 2 weeks after birth (Cetin, & Aslan 2015, p.356-396). However, this time is 5 hours or more in 1/10 of the mothers. In the study by Kirkley and Balkaya (2013), the frequency of breastfeeding varied between 2 and 15 times daily. In Turkey, there are different data on the starting time and frequency of first breastfeeding in general (Sahin et al. 2013; Golbasi & Koc 2008; Kartal et al. 2015). These differences are thought to be related to the quality of prenatal care, hospital policies, the type of delivery, problems experienced during childbirth, and the traditional attitudes and beliefs of mothers about breastfeeding.

Women may encounter some problems with their breasts in prenatal and postnatal periods (Taşkın, 2015 p.455-512). These problems can turn into complications when not effectively managed (Kartal et al., 2015) In this study, mothers were found to have fullness, flat or inverted breast problems in prenatal period. Similar to these findings, Kartal et al. (2015) reported in their study that 13.7% of women had a large breast, 34.4% had a flat breast, and 33.1% had an inverted nipple problem. In the study by Golbasi and Koc (2008), it was reported that about 1/4 of the mothers had problems with breast and milk release. Prenatal breast care counseling services are important for effective management of these problems. According to findings in the study, the majority of the mothers stated that they did not receive breast care counseling and breastfeeding training in the prenatal period. Pirinççi et al.

(2010) found in their study that of all the mothers who received prenatal care, it was adequate only in 57.0% of them. As seen in this study, it is observed that although the majority of women in Turkey receive prenatal care, breast care is not addressed adequately.

In this study, more than half of the mothers had problems with their breasts in the postpartum period, and about 1/3 of them had applied to a doctor for these problems, and that about half of those who applied to the doctor had used prescription drugs. The majority of the mothers who had problems stated that they had fullness/swelling/fewer in their breasts, pain and fissures on nipples, had bleeding, and inverted nipple problem within the first 10 days after birth. In their study, According to national data of UK, painful breasts were the second most common reason for giving up breastfeeding in the first two weeks after birth (Lawrence, & Lawrence, 2005 p.278-281).

The majority of mothers were found to apply Lansolin pomade to treat the nipple problems. Lansolin is an anti-inflammatory, antimicrobial, organic ester derivative that provides wound healing by creating a permeable air barrier (Elsalam et al. 2011). It is known to be used to treat painful nipple fissures seen in mothers who breastfeed in the postpartum period. In the study of Elsalam et al.(2011), HPA lansolin treatment was reported to be beneficial within the first 7 days of treatment, and relieve the pain and breast trauma caused by breastfeeding at a high rate within 14 days. However, lansolin is a pharmacological method and must be used in accordance with the physician's recommendation. In this study, some of the mothers had used lansolin without a recommendation of physician.

In the study, 1/5 of the mothers were seen to use pump or manual milking to treat breast problems. Research suggests that effective pumping of breast milk prevent breastfeeding problems effectively (Giugliani, 2004; Pustotina, 2016). Myles et al. (2015) reported that use of breast pumps reduced the problems in the postpartum.

It has been observed that the mothers who participated in the research resorted to traditional methods such as applying their own milk and olive oil to the nipple to relieve the problems occurred in their breasts during the postpartum period. In their study, Kirlek and Balkaya (2013) compared the effects of breast milk and olive oil on prevention of nipple pain and fissures in early

postpartum period, and found that breast pain decreased on the 6th day in the breast milk group (30.8%), and that the mother's milk application was more effective than the application of olive oil.

In this study, it is seen that the mothers applied hot water treatment to their breasts as well as wrapping boiled cabbage leaf. In some studies, it has been reported that green cabbage leaf is effective in treating breast engorgement (Lim et al.2015; Mangesi, & Zakarija-Grkovic, 2016). Arora et al. (2008) have reported that hot/cold compress and cabbage leaf application in postnatal period had similar effects in reducing pain and breast engorgement in women. However, in his study on breast engorgement and mastitis management, Pustotina (2016) stated that traditional methods such as cabbage leaf compression, massage, acupuncture and physiotherapy treatments did not effective in reducing the intense fullness in the breasts.

Some of the traditional methods that mothers have applied in this research include almond/walnut application, application of quince seeds solved in water, frequent breastfeeding, applying St. John's wort oil, drinking cumin/fennel tea, application of steeped tea, and humidification through nylon wrapping. In the study of Elsalam (2011) it was stated that there was a significant, albeit slow, decrease in breast pain and frequency during breastfeeding in mothers who applied tea bags to breasts. In addition, a mother in this study stated that she had applied breast massage to relieve her breast engorgement. In the study conducted by Witt et al. (2016) it was found that the therapeutic breast massage during the lactation period was useful in reducing pain quickly.

Some traditional interventions such as effective milk removal, cabbage leaves, hot/cold pack, Gua-Sha (scraping therapy), acupuncture may be used for the treatment of breast engorgement during early postpartum period (Lawrence & Lawrence 2005; Mangesi, & Zakarija-Grkovic, 2016; Pustotina, 2016). However, there is no strong evidence for these practices for widespread implementation. Although the effects of some practices of mothers in this study reported in the literature, the effects of some others are still unknown. Therefore, it is important to prevent and treat breast engorgement with safe practices in terms of nursing and midwifery services.

Conclusion

According to results of the study, the vast majority of mothers have had breast engorgement problems during the postpartum period, and have applied traditional practices to treat these problems. When compared to the literature, some of these practices can be considered useful and have no side-effects, while others are useless or unknown practices. In line with these results, it is recommended to address breast care more in prenatal care services as well as investigating the implications of the rational practices, among the traditional methods used to relieve breast engorgement.

Limitation

The findings obtained in the study are based on the expressions of the mothers, instead of the direct observation. In addition, since the data was collected retrospectively, the memory might have an effect on the quality of the data.

Acknowledgement: The authors thank to the women who attended the study.

References

- Akyuz, A., Kaya, T., & Senel N.(2007). Determination of breastfeeding behaviors of mothers and influencing factors. *TAF Preventive Medicine Bulletin*, 6(5), 331-335.
- Arora, S., Vatsa, M., & Dadhwal, V.A. (2008). Comparison of cabbage leaves vs. hot and cold compresses in the treatment of breast engorgement. *Indian Journal Community Medicine*, 33(3),160-162.
- Australian Breastfeeding Association. Engorgement 2014. [cited 2017 October]. Available from: <https://www.breastfeeding.asn.au/bf-info/common-concerns%E2%80%933mum/engorgement>.
- Chiu, J.Y., Gau, M.L., Kuo, S.Y., Chang, Y.H., Kuo, S.C., & Tu, H.C. (2010). Effects of Gua-Sha therapy on breast engorgement: a randomized controlled trial. *Journal of Nursing Research*. 18(1),1-10.
- Cetin, A.S., & Aslan, E. (2015). Normal prenatal process and care. In: Beji KN (Editor). Women's health and diseases. Nobel Medical Publications (in Turkish).
- Elsalam, S., Hamido, S., Hameed & Abd el Hameed, S. (2011). Effect of using pharmacological versus alternative therapy on traumatic nipples for lactating mothers. *Journal of American Science*, 7(11),485-496.
- Giugliani, E R.J. (2004). Common problems during lactation and their management. *Jornal de Pediatria*, 80(5),147-154.
- Golbasi, Z., & Koc, G. (2008). Breastfeeding behaviour of women during postpartum first six

- months and effect of prenatal breastfeeding attitude on postpartum breastfeeding. Hacettepe University Faculty of Health Sciences Nursing Journal. 16-31. [cited 2017 February]. Available from: <http://www.hyodergi.hacettepe.edu.tr/icindekiler/2008cilt15sayi1/02.pdf>
- Gungor, I., Gokyildiz, S., & Nahcivan, N.O. (2004). Opinions of a group of women who had caesarean sections about their births and their problems in the early post partum period. *Florance Nightingale Journal of Nursing*, 13,17-24.
- Kartal, B., Kaplan, B., Buldu, A., Ates, C.S., & Ekinci, E. (2015). Doğum sonu dönemdeki kadınların emzirme özellikleri ve bunu etkileyen meme sorunları. *İzmir University Medical Journal*, 1,1-10. (In Turkish)
- Kirlek, F., & Balkaya, N.A. (2013). The effects of mother's milk and olive oil on protection of nipple pain and nipple cracks at early postpartum period. *Journal of Research and Development in Nursing*, 15(2),17-34.
- Lawrence, R.A., & Lawrence, R.M.(2005). Management of the mother infant nursing couple. In: *Breastfeeding: A Guide for the Medical Professional*, 6th ed. Elsevier Mosby, Philadelphia, 2005, 278-281.
- Lim A.R., Song, J.A., Hur, M.H., Lee, M.K., & Lee, M.S.(2015). Cabbage compression early breast care on breast engorgement in primiparous women after cesarean birth: a controlled clinical trial. *International Journal of Clinical and Experimental Medicine*. 8(11),21335-21342.
- Mangesi, L., & Dowswell, T. (2010). Treatments for breast engorgement during lactation. *Cochrane Database Systematic Reviews*, 8(9), CD006946.
- Mangesi, L., & Zakarija-Grkovic, I. (2016). Treatments for breast engorgement during lactation. *Cochrane Database Syst Rev.*,28(6), CD006946.
- Myles, K.S., Weiss, N.J., Dunn, S., Peterson, W.E., & Kotterman, K.J. (2015). Maternal intravenous fluids and postpartum breast changes: a pilot observational study. *International Breastfeeding Journal*,10,18.
- Pırınçcı, E., Polat, A., Kumru, S., & Koroglu, A. (2010). Prenatal care conditions of women who delivered in an university hospital and influencing factors. *Journal of Adnan Menderes University Medical Faculty*, 11(2),1-7.
- Polit, D.F., & Beck, C.T. (2013). *Essentials of nursing research. Appraising evidence for nursing practice*. Lippincott Williams & Wilkins.
- Pustotina, O. (2016). Management of mastitis and breast engorgement in breastfeeding women. *The Journal of Maternal-Fetal & Neonatal Medicine*, 29(19),3121-3125.
- Saini, P., & Saini, R. (2010). Cabbage leaves and breast engorgement. *Indian Journal of Public Health*, 58(4),291-292.
- Sharma, P.A. (2013). Study to assess knowledge of postnatal mothers regarding breast engorgement. *International Journal of Nursing Education*,5(2),130-132.
- Snowden, H.M., Renfrew, M.J., & Woolridge, M.W. (2007). WITHDRAWN: Treatments for breast engorgement during lactation. *Cochrane Database Systematic Reviews*, 18,CD000046.
- Sousa, L.D., Haddad, M.L., Nakano, A.M.S., & Gomez, F.A. (2012). A non-pharmacologic treatment to relieve breast engorgement during lactation: an integrative literature review. *Revista da Escola de Enfermagem da USP*,46 (2),472-479.
- Sahin, H., Yilmaz, M., Aykut, M., Balci, E., Sagiroglu, M., & Ozturk, A. (2013). Risk factors for breastfeeding problems in mothers applied to two public healthcare centers in Kayseri province. *Turkish Archives of Pediatric*,48,145-151.
- Taskin, L. (2015). *Birth and Women's Health Nursing*. 12. Printing. System Offset Printing, p. 455-512 (in Turkish).
- Turkish Public Hospitals Statistical Yearbook 2014. Turkish Public Health Agency. [cited 2016 August]. Available from:<http://www.tkhk.gov.tr/Dosyalar/bc10470bf9534a39b5b444691850a837.pdf>.
- Witt, A.M., Bolman, M., Kredit, S., & Vanic., A. (2016). Therapeutic breast massage in lactation for the management of engorgement, plugged ducts, and mastitis. *Journal of Human Lactation*, 32(1),123-131.
- Zhou, Y. (2013). Prevention of breast engorgement among postpartum women in an obstetric and gynecological hospital: a best practice implementation project. *JBI Database of Systematic Reviews and Implementation Reports*,11(6),306-315.