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Original Research Article

An Investigation of Galactagogues from the Perspective of Mothers Who Have a Newborn Child

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ABSTRACT

The aim of this research is to specify views of mothers who have a baby in the newborn unit regarding foods, beverages and practices increasing breast milk supply. Sample of the research consisted of 202 mothers having newborn babies in Malatya. A questionnaire consisted of two parts administered to the mothers in order to find out their socio-demographic characteristics, obstetrical history and breastfeeding status. The data were collected between March and May 2015. Data were analyzed by using Statistical Package software for The Social Sciences (SPSS). More than half of the mothers included in the study (%54.0) were between the ages of 25 and 34. Only 24.8% of the mothers were employed and 75.2% of them were unemployed. According to the results of the study more than half of the mothers (53%) stated that they used lactogenic food and beverages. while 73.8% of the mothers thought that cracked wheat (bulgur) consumption increased the breast milk, 70.3% of them considered molasses, 53.0% of them considered tahini halva, 50.0% of them considered confectioneries and nearly half of them (44.1%) considered legume as a galactagogue. Beverages such as water (85.6%), fruit juice (64.9%), buttermilk (ayran) (61.9%), and cow's milk (55%), fennel (51.5%) and lohusa (puerperal) sherbet (49.5%) were identified as lactogenic beverages by the mothers participated in the research. Adequate and balanced nutrition, adequate fluid intake, duration and quality of sleep, avoiding stress and relaxation of mothers are involved in general recommendations given for increasing breast milk.

Keywords: Breast milk, galactagogues, breastfeeding, newborn.

INTRODUCTION

Adequate and balanced nutrition has an important role in the growth and the development of a newborn baby in a healthy way. During the infancy which is the fastest period of the growth and the development of children, breast milk provides the adequate and balanced nutrition. Breast milk is superior to all artificial food in terms of nutritional value. World Health Organization (WHO) suggests that in the first six month after the birth, baby must be fed only with breast milk (WHO/UNICEF, 1992).After the sixth month, appropriate complementary foods can be started to use and breastfeeding should be continued for two years or more (UNICEF 2011; WHO 2011). Feeding the baby with only breast milk for physical, psycho-social and cognitive development of the baby for six month and giving appropriate complementary foods after the six month for two years ensures baby to make a healthy start to life (Çınaret al., 2012). Breast milk is important for newborn to survive and to maintain its development in an appropriate manner. Milk is the only source which is full of organic nutrients and minerals that a

newborn can have. Colostrum (the first milk from the breast after birth) and transition milk contain antibodies and bioactive substances which are significant for newborn's survival, growth and development (Sumanth & Narasimharaju, 2011). Breast milk is one of the most important factors contributing to children's growth and development in a healthy way (Hacettepeüni, 2009). Breast milk; with the amount of vitamins, minerals, proteins, carbohydrates and lipids it included and in particular with the superiority of its bioavailability is a wonderful food that meets all the requirements of babies alone for first six month (Çınaret al., 2012). Breast milk is pure; it always at a standard temperature and it provides a close bond between mother and baby. In addition to these, breast milk ensures for baby to acquire immunity to diseases through the antibodies of mother for first six month (Çataket al., 2012). Also it stimulates the immune system, helps vaccines to respond better and provides protection against respiratory tract infections and diarrhea which are two main reasons of infant deaths in developing countries (Yıldızet al., 2008). In addition to this, it reduces the prevalence of nutrition disorders and prevents food borne infections (Çataket al., 2012). Breastfeeding provides communication between mother and baby. Therefore, baby should be breastfed within the first half hour after birth, the baby should be provided to share the same room as the mother and baby should be breastfed whenever it cries. Early mother-child relationship accompanies increasing breastfeeding rates, decreases in infections and progress in growth (Küçük & Gökmen, 2012).

Because breast milk especially meets the requirements of a significant proportion of protein and vitamins, other foods should be given as a complementary to breast milk not as a substitute for it from 6 to 24 months, (BattaloğluİnanÇ, 2013). As a result of conducted studies, it has been proved that breast milk plays a protective role against diseases such as sudden infant death syndrome, insulin-dependent diabetes, Crohn's Disease, leukemia, ulcerative colitis and allergy. Besides that, breast milk contains all the nutrients necessary for growing, developing and supporting the immune system as well as playing an important role in preventing the diseases. Unfortunately, the lack of breast milk in the first few days after birth may lead to premature abandonment of breastfeeding. Therefore, mothers start to seek new ways to increase the amount of their milk (Camin, Vieira, Montagnini, Kiss & Gerardin, 2015). Mothers considering that their milk isn't enough can apply to various traditional methods apart from some methods whose efficacy was proven by researchers in order to increase their breast milk (Merih, Alioğullari & Karatana, (2014). To increase the breast milk; early initiation of breastfeeding, visual warnings (mother's seeing her baby, taking it on her lap, breastfeeding frequently), emptying the breasts, relaxing of mother, not getting tired and sleeping sufficiently are important initiatives. In addition to these, galactagogues and sleep regulator herbal teas have been also used from past to present (Temizsoy and Ovalı, 2010). Galactagogue is the name given to drugs, herbs or foods that increase the breast milk. Since the use of drugs as galactagogue can bring about many undesirable side effects, mothers mostly prefer to use herbs and foods as galactagogue (Bnouham, 2010). It is seen that the use of herbal tea as galactagogue is beneficial for increasing breast milk supply on postnatal days (Turkyılmaz, Onal, Hirfanoglu, Turan, Koç, Ergenekon & Atalay, 2011).

Mother's feeling herself comfortable and peaceful and taking care of her nutrition increases the lactation. If the mother breastfeeds her baby right after the birth, takes care of her own nutrition and keeps away from the factors decreasing breast milk, she can secrete enough milk for the baby up to 4 to 6 months. Adequacy of breast milk is easily understood from the baby's growth rate. If the baby's gaining

weight and increase in length run its course, breast milk is sufficient. As long as the breast milk is sufficient, there is no need to give other nutrients to baby (Baysal, 1993). Not only the increase in amount of breast milk but also the increase in quality is important. A healthy mother needs extra energy and nutritional elements to secrete daily average of 750-850 ml milk. If the increasing energy and nutritional elements can't meet the requirements, mother burns the nutrition in her own body. The milk secreted by mother during the breastfeeding period (lactation) is a product of nutrients she took. If mother meets her own requirements correctly during lactation, because she can stabilize food storages in her body, nutritional elements content of the milk she secreted will be in balance (Şanlıer, küçükkömürler & Yaman, 2012). Although breastfeeding is a quite common behavior in our country, the habit of feeding only with breast milk isn't at desired levels. Despite the fact that continued breastfeeding strategies for years all over the world have increased breastfeeding rates, still breastfeeding initiation rates haven't reached the desired level in terms of feeding only with breast milk for the first six months and in terms of duration to continue to breastfeeding (Who/Unicef 1992; Wolf 2000; Hacettepe 2003). This study was planned and conducted in order to specify views of mothers who have a baby in the newborn unit regarding foods, beverages and practices increasing breast milk supply.

MATERIALS AND METHODS

Population and Sample

Population of the research consisted of mothers having newborn babies in Malatya. Since, reaching the population would be difficult, 202 mothers who had babies in neonatal unit and accepted to work with the researchers in Turgut Özal Medical Faculty were identified as sample of the study. The data were collected between March and May 2015. While determining the sample, typical case sampling was preferred among purposeful sampling methods. Typical case sampling method requires that a typical case is determined among numerous cases related to the research problem and data collection is maintained through this sample (Büyüköztürk, Çakmak, Akgün, Karadenizve Demirel, 2011).

Data Collection Tools

The research data were collected by researchers between March 1st, 2015 and April 31st, 2015. Before starting to study, an extensive literature review was made and views and impressions of a Professor working in pediatrics department of Turgut Özal Medical Faculty were taken. To provide content validity and clarity, the survey form which was prepared by the help of interviews, related resources and previously conducted researches was examined by a total of 6 academic members including two from nutrition and dietetics department, two from pediatric development department, two from pediatrics department and one from statistics department. Then, survey form was created by making necessary adjustments on it in line with the recommendations given by the experts.

Questionnaire administered to the mothers consisted of two parts. In the first part, there were 32 questions prepared to find out socio-demographic characteristics, obstetrical history and breastfeeding status of mothers. The second part composed of open and close-ended questions which would reveal mothers' practices aimed at increasing breast milk. During the conduction of the questionnaire, official approval was taken from the institution and an appropriate time was determined to implement the survey in consultation with nurses working in pediatrics department. After instructions of the questionnaire given to the nurses clearly by the researcher, a suitable environment was created for the provision of reliable information. The researchers visited TurgutÖzal Medical Faculty to collect the data every other day and had a face to face interview with the mothers who had babies in newborn unit by using question-answer method.

Data Analysis

Statistical analysis of data was carried out by using Statistical Package software for The Social Sciences (SPSS) in Windows environment. In the statistical analysis of data obtained from the study, charts showing the mean (X), standard deviation (S) and percentage (%) values were prepared and the chi-square ($\chi 2$) test was used. P value less than 0.05 was considered statistically significant.

FINDINGS AND DISCUSSION

Findings Related to the Socio Demographic Characteristics of Mothers Participating in the Study

Table 1: Socio Demographic Characteristics of the Families (n=202).

Socio Demographic Characteristics	n	%
Age		
Under 24	51	25.2
Between 25 - 34	109	54.0
35 and older	42	20.8
Educational Background		
Primary School graduate	58	28.7
Secondary school graduate	41	20.3
High school graduate	60	29.7
University graduate	43	21.3
Employment status		
Employed	152	75.2
Unemployed	50	24.8
Income Status		
Less than ₺1000	91	45.0
Between ₺1001 - ₺1700	32	15.8
Between ₺1701 - ₺2500	36	17.8
More than ₺2501	43	21.3

More than half of the mothers included in the study (54%) were between the ages of 25 and 34, 25.2%of them were at the age of 24 and under 24, 20.8% of them were at the age of 35 and older. 29.7% of the mothers were high school graduates, 28.7% of them were primary school graduates, 21.3% of them were university graduates and 20.3% of them were secondary school graduates. Only 24.8% of the mothers were employed and 75.2% of them were unemployed. According to the distribution of the income status of mothers included in the study; it was found out that 91 of the mothers (45%) had a 1000TL and below income, 43 of them (21.3%) had a ₺2501 and above income, 36 of them (17.8%) had an income between ₺1701 and ₺ 2500 TL, 32 of them (15.8%) had an income between ₺ 1001and ₺1700 (See table 1).

Findings Related to the Obstetric History and Breastfeeding Status of Mothers Participating in the Study

Table 2: Distribution of Mothers According To Their Obstetric History and Breastfeeding Status.

Pregnancy Type	n	%
Planned	146	72.2
Unplanned	56	27.8
Mode of Delivery		
Normal	60	29.7
Caesarean	142	70.3
Number of Children		
1	88	43.6
2	65	32.2
3	30	14.9
4	12	5.9
5	7	3.5
Infant's Age in Month		
1	106	52.5
2	40	19.7
3	21	10.4
4	23	11.4
5	12	6.0
Breast Milk Sufficiency		
Sufficient	71	35.1
Insufficient	131	64.9
Receiving Breastfeeding Training		
Received	103	51.0
Not Received	99	49.0
Infant's First Food		
Ready Made Formula	117	57.9
Breast Milk	67	33.2
Sugared Water	10	5.0
Cow Milk	7	3.5
Water	1	0.5
Breastfeeding Frequency		
Whenever he/she cries	51	25.2
Every two hours	77	38.1
More Frequent	47	23.3
Less Frequent	27	13.4

It is seen that a considerable part of the mothers (72.2%) included in the study planned their pregnancy. While %70.3 of the mothers had delivery by cesarean section, 29.7% of them had normal delivery. Almost half of the mothers had (43.6%) one child and 52.5% of these children were 1 month old. When the mothers included in the study were asked about whether their milk was enough or not, 64.9 % of them stated that their milk wasn't sufficient (Table 2). Among the mothers in the study who stated that their milk wasn't sufficient, while 24 of them (11.9%) considered problems and sorrowed that they experienced as the causes of this, 14 of them (6.9%) related this case with fatigue, 13 of them (6.4%) said that their milk was always

limited and this was not a familial case and 11 of them (%5.4) thought that they undernourished, for this reason their milk wasn't sufficient. 72.7% of the mothers participating in the Gökduman (2009)'s study thought that their milk was sufficient, but 27.3% of them thought that their milk wasn't sufficient. In another conducted study, 72.7% of the mothers considered that their milk was enough, but 27.3% of them found their milk insufficient, this result showed parallelism with the results of existing study (Gökduman & Balkaya, 2010).

While 103 of the mothers (51%) received a training related to infant nutrition and breast feeding, 99 of them (49%) didn't receive any education on this subject (Table 2). In general, mothers' adequate nutrition, adequate fluid intake, sleep duration and quality, avoidance from stress and relaxation are the topics involved in the content of education given to mothers in order to increase breast milk (Moore& Chute, 2000). When examining the sources where mothers learned about infant nutrition and breast milk, it is seen that 51 of them (25.2%) learned from nurses, 36 of them learned from doctors and the others learned from midwife, family elders, the internet, television or the books. In the study of Gökduman (2009), it was determined that 77.8% of the mothers didn't take any training about breastfeeding and about precautions and practices for increasing the breast milk. Only 22.2% of them took education on these subjects. In the study carried out by Uslu et al. (2010), it was confirmed that 37.1% of the mothers didn't take any information during the prenatal and postnatal period. In addition, in this study it was also confirmed that 48.1% of the mothers receiving information took this information from health officers and 14.8% of them got information via the printed-visual media and the internet. In another conducted study, from 260 mothers indicating their sources for getting information about benefits of breast milk, 46.9% of them reported that they learnt from family and environment, 45.3% of them learnt from healthcare professionals and 7.8% of them learnt from TV and printed press (İnanç, 2013).As it was shown in table 2, 117 mothers (57.9%) gave ready-made formula, 67 of them (33.2%) gave breast milk, 10 of them gave sugared water, 7 of them (3.5%) gave cows' milk and 1 of them (0.5%) gave plain water to their babies as a first food.

In another study conducted by Ok and Genc (1992), 51.2% of the mothers said that they gave their babies breast milk as the first food, while 15.9% said they gave water, 5.7% said they gave water sugared water and 26.8% said other things (e.g. I don't know; formulas etc.). Ozturk et al. (1997) also found that 71.4% of the mothers gave breast milk as the first food while 22.3% had given water sugared water and the other 2.9% gave ready-made formula. In another study conducted by Dalgıç et al. (1998), it was found out that 90.2% mother's breastfed their babies, 4.6% gave water with sugar and 3.4% gave water and the other 1.7% gave ready-made formula to their babies as the first food. This rate is bigger than the one in our study (33.2%). Similarly, in a study conducted in Izmir, Günay et al. (2003) found out that 81.6% of the participants with 6-12 month-old babies had firstly breastfed their babies and Onay (2005) also pointed out that 94.1% of the participants gave their babies their breast milk as the first food. In Kahriman (2007)'s study, 93.3% of mothers stated that they gave their babies breast milk as the first food and 6.7% of them stated that gave ready-made formula or other nutrition. Onay et al (2009) also found that 79.7% of the mothers breastfed their babies, while 8.1% of them gave sugared water, 6.7% gave ready-made formula, 4.3% gave water and the others 1.2% gave cow milk as the first food. As it is seen, in contrast to these studies, ratio of the mothers giving breast milk as first food to their babies was 33.2% in our study; unhappily this ratio was quite low. Tanrıverdi et al. (2014) found that mothers' average duration of giving

exclusively breast milk was 4.35 + 3.27 months and average total duration of giving breast milk was 9.35+8.65 months.

While 77 of the mothers (38.1%) included in the study breastfeed their babies at every two hours, 51 of them (25.2%) breastfeed their babies whenever the babies cried, 47 of them (23.3%) breastfeed their babies at intervals more than 2 hours and 27 of them (13.4%) breastfed their babies at intervals less than 2 hours. During the first four-six weeks of the life, a healthy infant should be fed 8-12 times in 24 hours. Some babies take enough food to satisfy them for 4 hours, but some others want to be fed in every 2-3 hours. World Health Organization recommends that babies shouldn't be breastfed every time they show a sign of hunger (Onbaşı, 2009).

Findings Related to the Mothers' Opinions about Lactogenic Foods, Beverages and Practices

Table3: Distribution of Lactogenic Food from the Mother's Perspective.

Food	n	%
Cracked wheat (bulgur)	149	73.8
Molasses	142	70.3
Halva	107	53
Sweets	101	50
Legumes	89	44.1
Onion / garlic	79	39.1
Parsley	58	28.7
Anise	55	27.2
Rosehip	49	24.3
Cumin	38	18.8
Liver	31	15.3
Cowpea	27	13.4
Nettle	26	12.9
Chestnut	22	10.9
Basil	9	4.5
Galega (goat's-rue)	6	3.0
Fenugreek	6	3.0
Milk thistle	4	2.0
Thistle seed	3	1.5
Prophet thorn	2	1.0
Indian asparagus	1	0.5

Food mothers used to increase breast milk are shown in the table. As it was shown in the table, while 73.8% of the mothers thought that cracked wheat (bulghur) consumption increased the breast milk, 70.3% of them considered molasses, 53.0% of them considered tahini halva, 50.0%of them considered confectioneries and nearly half of them (44.1%) considered legume as a galactagogue. In addition, in Eğri's study(2006)liquid food consumption (71.3%), drinking light tea (63.7%), eating desserts (62.4%), drinking soup (62.1%), syrup consumption (49.2%), drinking compote (44.9%), eating molasses / halva (35.4%), eating liver / meat (9.6%) and doing hot application (4.2%) were thought by the mothers that they increased breast milk supply.

As a result of Erkaya, Gürsoy and Güler (2012)'s study, 87.7% of the mothers ate vegetables, 69, % of them had soup and 39.2% of them ate fruits in order to increase breast milk supply. 99.4% of the mothers expressed that lactogenic food that they eaten increased their breast milk. In the work of Gölbaşı and Eğri (2010), it was determined that women mostly consumed liquids (75%), desserts (61.3%) and cracked wheat (bulgur) (60%) in order to increase breast milk during the postpartum period.

Table4: Distribution of Lactogenic Beverages from the Mother's Perspective.

Beverages	n	%
Water	173	85.6
Juice	131	64.9
Buttermilk (ayran)	125	61.9
Cow milk	111	55.0
Fennel	104	51.5
Lohusa (puerperal) Sherbet	100	49.5
Tea	93	46.0
Sage	88	43.6
Malt Drinks	45	22.3
Mineral water	43	21.3
Alcohol	21	10.4
Coke	10	5.0

As it is shown in the table, Beverages such as water (85.6%), fruit juice (64.9%), buttermilk (ayran) (61.9%), cow's milk (55%), fennel (51.5%) and lohusa (puerperal) sherbet (49.5%) were identified as lactogenic beverages by the mothers participated in the research. In a study conducted at Ankara Training and Research Hospital, after giving breastfeeding education suggesting mothers to take adequate fluid in order to increase breast milk, they were recommended to consume galactagogue-efficient herbal tea as well (Tırak et al., 2008).

Even though, it is asserted that fennel has a little lactogenic effect, it hasn't been scientifically proven that herbal teas

have an impact on breast milk and infant nutrition (Gökçay, 2008). Erkaya et al.(2012) stated in their research that 93.0% of the mothers drank water, %48.1 of mothers drank homemade compote, 34.7% of the mothers drank fennel tea in order to increase breast milk and it was determined that 99.4% of the mothers were of the opinion that fluids they drank increased milk supply. In the study of Gölbaşı and Eğri (2010), it was found out that majority of the women (70. %) drank plenty of weak and sweet tea so as to increase breast milk. In their study, the percentage of those who thought that tea increased breast milk was 46% and this is lower than the existing research results. Mothers who thought that their milk wasn't enough and who wanted to breastfeed their babies appealed to various methods, traditionally gave importance on consumption of some food and used herbal teas commonly to increase their milk (Demirtaş, 2005; Eğrive Gölbaşı, 2007; Chuang et al., 2009; Merihet al., 2004). In similar studies, it was indicated that herbal teas such as fennel, lime, anise, galactagogue herb mixture tea and quince leaf tea increased breast milk (Dinçtürk, 2006; Gökçay, 2008, Tırak et al., 2008; Türkyılmaz et al., 2009).

In another study, it was stated that %30 of the mothers used traditionally herbal tea in order to increase breast milk. According to the study results, it was determined that one of the most significant types of the herbal teas that mothers used for increasing breast milk was fennel tea. In the second place a commercial tea (galactagogue herb mixture tea) which was marketed as lactogenic and contains galactagogue herbs like hibiscus, fennel, African red tea, verbena, raspberry, fenugreek, goatee and maltodextrin and vitamin C was used. It was found out that mothers consumed between 100ml and 800ml (average 410 ± 178 ml) herbal tea in a day and they prepared herbal tea generally by boiling (70.8%) and by infusion (29.2%). 37 of 65 mothers (57%) believed that herbal teas increased their milk and 30 of the mothers (46.2%) believed that fennel tea increased milk supply (Gökduman and Balkaya, 2010).

Table 5: Distribution of Practices Increasing Milk Supply from Mothers' Perspective.

	n	%
Relaxing	146	72.3
Sleeping	140	69.3
Getting a massage	66	32.7
swimming	49	24.3
Sauna	24	11.9
Yoga	20	9.9
Acupuncture	10	5.0

While 146 (72, 3%) of the mothers considered that relaxing increased breast milk, 140 (69.3%) of them considered sleeping, 66 (32.7%) of them considered getting a massage and 49 (%24.3) of them considered swimming as a milk increasing practices. The mothers whose babies are monitored in neonatal units can't have enough contact with their babies. Also they can't breastfeed their babies and get stressed because of inadequate resting. Thus their milk supply decreases with hormonal effects (Temizsoy and Ovalı, 2010). Considering mothers in this study had also babies in neonatal units, it was understood better why they emphasized the importance of relaxing and sleeping in order to increase milk. Taking adequate fluid and resting enough are the most significant factors that increase the amount of milk in the mother (Quigley, 2007).

Factors Affecting Mothers' Food Intake for Increasing the Breast Milk

It was determined that educational status of the mothers participating in the study had an impact on food intake for increasing milk supply (X^2= 8,819, p=0,032). As the mothers' educational level increased, a significant increase was observed in lactogenic food intake. 69.8% of university graduates, 56.7% of high school graduates, %43.9 of secondary school graduates and 43% of primary school graduates used lactogenic foods. Mothers' employment status, monthly income and age didn't have a statistically significant effect on food intake for increasing milk supply ($p > 0.05$). In another study, it was determined that among the socio-demographic

characteristics, only the mothers' educational level and employment status influenced herbal tea usage ($p<.05$). Mothers whose educational level was high (39.1%, $X^2= 6.223$, $p = .013$) and mothers who were employed (56.5%, $X^2 = 6.223$, $p = .013$) had a higher herbal tea usage rate (Gökduman and Balkaya, 2010).

Table 6: Mothers' Lactogenic food usage according to their demographic characteristics.

	Lactogenic Food Usage					
	user		Non user			
Educational Status	**n**	**%**	**n**	**%**	**X^2**	**p**
University graduate	13	30.2	30	69.8	8.819	0.032
High school graduate	26	43.3	34	56.7		
Secondary school graduate	23	56.1	18	43.9		
Primary school graduate	33	56.9	25	43.1		
Total	95	47	107	53.0		
Employment Status	**n**	**%**	**n**	**%**	**X^2**	**p**
housewife	75	49.3	77	50.7	1.318	0.251
Official	9	26.5	25	73.5		
Monthly Income	**n**	**%**	**n**	**%**	**X^2**	**p**
Less than ₺1000	47	51.6	44	48.4	5.583	0.134
Between ₺1001 - ₺1700	18	56.3	14	43.8		
Between ₺1701 - ₺2500	16	44.4	20	55.6		
More than ₺2501	14	32.6	29	67.4		
Age	**n**	**%**	**n**	**%**	**X^2**	**p**
Under 24	24	47.1	27	52.9	3.652	0.161
Between 25 - 34	46	42.2	63	57.8		
35 and older	25	59.5	17	40.5		

Table 7: Mothers' Lactogenic Food Usage According To Their Obstetric History and Breastfeeding Status.

	Lactogenic Food Usage					
	User		Non user			
Breast milk sufficiency	**n**	**%**	**n**	**%**	**X^2**	**p**
Sufficient	32	45.1	39	54.9	0.169	0.681
Insufficient	63	48.1	68	51.9		
Receiving Breastfeeding Training	**n**	**%**	**n**	**%**	**X^2**	**p**
Recieved	40	38.8	63	61.2	5.665	0.017
Not recieved	55	55.6	44	44.4		
Mode of delivery	**n**	**%**	**n**	**%**	**X^2**	**p**
Normal	31	51.7	29	48.3	0.737	0.391
Cesarean	64	45.1	78	54.9		
Infant's First food	**n**	**%**	**n**	**%**	**X^2**	**p**
Breast Milk	31	46.3	36	53.7	0.023	0.879
Hazır mama	64	47.4	71	52,6		
Pregnancy type	**n**	**%**	**n**	**%**	**X^2**	**p**
Planned	66	45.5	79	54.5	0.326	0.568
Unplanned	28	50.0	28	50.0		

There was a statistically meaningful effect of receiving training about breastfeeding during pregnancy period on lactogenic food intake ($X^2 = 5.665$, $p=0,017$). 63 mothers (61.2%) received education and 44 mothers (44.4%) not received education during pregnancy preferred lactogenic food. It was found out that mothers' delivery method, infant's first food, Pregnancy type and breast milk sufficiency didn't have a significant impact on lactogenic food intake.

Mothers' thoughts about their breast milk sufficiency and preferences on supplemental food given to babies in the first three days after birth were the other important factors affecting herbal tea usage. 42.9 %($X^2 = 5.855$, $p =.016$) of the mothers who gave supplementary foods in the first three days after birth and 40.7 %($X^2 = 4.324$, $p = .038$) of the mothers whose milk wasn't enough used herbal tea (Gökduman and Balkaya, 2010).

CONCLUSION AND SUGGESTIONS

According to the results of the study, more than half of the mothers (53.0%) were determined to use a variety of foods and beverages to increase breast milk. The written literature about the traditional methods applied in increasing breast milk were so limited, however many foods and

herbs were regarded as increasing low milk supply. As it was shown in the study, a majority of the mothers (73.8%) believed that eating cracked wheat increased breast milk. Also, consuming molasses (70.3%), tahini halva (53.0%), confectionery (50%) and legumes (44.1%) were regarded as lactogenic food by the mothers participated in the research. Beverages such as water (85.6%), fruit juice (64.9%), buttermilk (ayran) (61.9%), and cow's milk (55%), fennel (51.5%) and lohusa (puerperal) sherbet (49.5%) were identified as lactogenic beverages by the mothers. In addition, While 146 (72.3%) of the mothers considered that relaxing increased breast milk, 140 (69.3%) of them considered sleeping, 66 (32.7%) of them considered having a massage and 49 (24.3%) of them considered swimming as a milk increasing practices. While mechanism of action was uncertain, all these food, beverages and the practices regarded as increasing the breast milk are used widely during breastfeeding period in line with traditional beliefs knowledge and experiences. Adequate and balanced nutrition, adequate fluid intake, duration and quality of sleep, avoiding stress and relaxation of mothers are involved in general recommendations given for increasing breast milk (Tanrıverdi et al., 2014).It should be recommended that trainings aiming to develop prenatal breastfeeding behaviors and attitudes should be given in prenatal, natal and post-natal periods primarily by nurses and midwives.

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