



Fathers' knowledge about and attitudes towards breast feeding in Manisa, Turkey

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ABSTRACT

Objective: to determine the extent of knowledge fathers of newborns have about breast feeding and lactation and to examine their attitudes regarding breast feeding.

Design: a descriptive, cross-sectional study.

Setting: Manisa Maternity and Children's Hospital.

Participants: 203 fathers of newborn infants.

Findings: although a wide majority of the participants (92.1%) expressed a desire to have their infants breastfed, it was found that only 58.6% discussed this with their partners. It was discovered that 88.7% of the fathers were happy to help with the housework so that their wives could breast feed while 57.6% stated that breast feeding would be psychologically beneficial to both the mother and the baby. Approximately half of the study subjects (48.8%) expressed an interest in attending an educational programme on breast feeding for fathers.

The study also showed that the fathers' level of education, the type of family they were a part of and previously received education on lactation and breast feeding had an effect on their knowledge and attitudes toward breast feeding ($p < 0.05$).

Conclusion: it was seen that fathers were eager to have their infants breastfed but unable to adequately share such thoughts with their wives. It was also observed that their knowledge about breast feeding and lactation was limited, leading to the conclusion that fathers may benefit from a supportive educational programme on breast feeding.

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Introduction

The positive impact of breast feeding on an infant's growth, development and health has been revealed in many studies. The World Health Organization (WHO) and The United Nations Children's Fund (UNICEF) recommend exclusive breast feeding for all infants from birth to six months of age and support the continuation of breast feeding with the addition of supplementary food up until the child is two years old (Arora et al., 2000; Küçükosmanoğlu et al., 2001; Manisa Demographic and Health Survey, 2005; World Health Organization, 2006; Susin and Giugliani, 2008; Yiğit et al., 2008). The WHO Global Data Bank on breast feeding estimates that only 35% of infants (younger than

12 months) are exclusively breastfed in the first four months of life. WHO data shows that rates of exclusive breast feeding in the first six months after birth are considerably low all around the world (World Health Organization, 2006).

Although breast feeding is widespread in Turkey, it is not at the level WHO recommends (Akyüz et al., 2007; Yiğit et al., 2008). A national survey conducted in 2008 across Turkey [Turkey Demographic and Health Survey (TDHS)] established that 96.7% of children were breastfed for some period of time that was reported as either much longer or shorter than the WHO recommendation. Similar results were found in a survey conducted in Manisa (Manisa Demographic and Health Survey, 2005; Yiğit et al., 2008).

Exclusive breast feeding is still not adequately practiced in Turkey. Babies are introduced to ready-made artificial milk food and other liquid foods and/or water shortly after birth. Since the use of bottles increases the risk of gastrointestinal system infection, this is not an advised method of feeding for small infants.

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The frequency of pacifier and bottle use is high, however. The rate of artificial milk-feeding among infants younger than six months old is reported to be 41%, meaning that one out of every five infants is artificially fed (Yiğit et al., 2008).

TDHS 2008 statistics reveal that breast feeding begins relatively late in Turkey. Only 39% of breast-fed infants start to receive mother's milk in the first hour after birth; 27% are not breastfed at all in the first 24 hrs. Among infants younger than six months, only 41.6% are exclusively breastfed; the median duration of breast feeding is 16 months. Similarly, it was found in another study that about two out of every five babies are exclusively breastfed in the first six months (Yiğit et al., 2008). Starting infants on baby artificial milk and other liquids is a common practice, and artificial milk-feeding is a preferred practice. It has been seen that recent policies adopted in Turkey to foster a recognition of 'baby-friendly' hospitals in order to encourage the spread of breast feeding have been successful, but this support must be sustained (Küçükosmanoğlu et al., 2001; Yiğit et al., 2008).

It is known that breast feeding has a vital impact on a child's physical, emotional and cognitive development. Whenever this phenomenon is discussed, the relationship between the immediate role-players, the mother and the infant, is more likely to be in the spotlight. This is not an incorrect perspective, but it is an inadequate one. Another factor to be considered in a discussion of breast feeding is the impact of the partner/father (Akyüz et al., 2007; Yapıcı, 2007). In this context, it is useful to understand the cultural, personal, emotional and familial variables that have an impact on a woman's decision to breast feed. One of the most important factors influencing a woman's decision to breast feed is the attitude of close family members toward breast feeding—specifically, a woman's husband or her mother, for example (Arora et al., 2000; Pollock et al., 2002). When breast-feeding practices are examined, researchers need to look beyond the woman and include her partner and the significant support people in her life in their analysis (Arora et al., 2000; Ingram et al., 2002; Pollock et al., 2002; Ekström et al., 2003; Pisacane et al., 2005). Studies have shown that when fathers are supportive of breast feeding, mothers continue to pursue the practice at discharge from the hospital and thereafter. By the same token, women were found to stop breast feeding if the father does not support the practice. In short, most studies in the literature indicate that a father's attitude and role in the breast-feeding process have an impact on their wives' perspective on starting and continuing to breast feed (Freed et al., 1992; Susin et al., 1999; Arora et al., 2000; Shepherd et al., 2000; Scott et al., 2001; Ingram et al., 2002; Pollock et al., 2002; Kong and Lee, 2004; Shaker et al., 2004; Wolfberg et al., 2004; Pisacane et al., 2005; Sherriff et al., 2009; Rempel and Rempel, 2011). Despite the limited number of studies that acknowledge the father's supportive role in breast feeding, it has been shown that fathers' information and perceptions concerning lactation and breast feeding were inadequate (Freed et al., 1992; Shepherd et al., 2000; Küçükosmanoğlu et al., 2001; Vaaler et al., 2011).

In Turkey and in other countries, research on the factors that influence a mother's decision to breast feed has generally been directed toward factors stemming from the mother and the infant. The literature on the role of the father in this process, however, is scant. A few studies do report that fathers' support of breast feeding may influence a woman's decision and that this has the potential of increasing the number of women that breast feed (Küçükosmanoğlu et al., 2001; Scott et al., 2001). In Turkey, too, even though there are many studies that have evaluated mothers' knowledge and attitudes regarding breast feeding, there is still very little research on assessing father's knowledge and attitudes regarding the practice. If breast feeding is to be made more widespread and encouraged to be continued, it is important to determine the extent of paternal knowledge and to identify fathers' attitudes.

Methods

Research purpose

To determine the extent of knowledge fathers of newborns have about breast feeding and lactation and to examine their attitudes regarding breast feeding.

Data collection

Data were collected with a questionnaire that was prepared by the researchers after a review of the literature. The questionnaire comprised of three sections. The first section concerned the socio-demographic characteristics of the fathers, namely age, education, family type, and perception of income (meaning how fathers perceived their economic status when the income of the working members of the family was compared with family expenditures). The second section was related to the newborn (gender, position in the family birth order, method of birth), while the third section of the questionnaire was composed of questions that were designed to assess the fathers' knowledge about breast feeding and lactation and their attitude regarding this practice. Outside of the questions that asked for information about breast-feeding initiation and duration, the questions on breast feeding and lactation were designed for responses of 'Yes', 'No', and 'I don't know or I have no idea'.

Filling out the form took approximately 15 mins. To ensure the comprehensibility of the data collection form, a pilot study was conducted with 11 fathers whose wives had given birth at the same clinic prior to the actual study, after which the necessary revisions were made on the questionnaire.

Setting

This descriptive and cross-sectional study was conducted at the Manisa Maternity and Children's Hospital; the study samples were the husbands of women who had given birth at the hospital over the period August–November 2009.

A cross-sectional study is a descriptive study which measures the frequency and characteristics of the variables of interest at a specific point of time. These studies are generally conducted on a representative sample population of interest (Aksakaloğlu, 2006).

Manisa is an agriculturally, commercially and industrially developed city in western Turkey that receives a significant number of migrants from the eastern and southeastern parts of the country. The hospital where the study was carried out provides women with maternity care, birth, gynaecological and family planning services. Women are encouraged to have normal deliveries in the absence of complications, and discharge from the hospital is 24 hrs after birth for mothers who had vaginal deliveries and 48 hrs after birth for cases of caesarean birth. About 5,000 births a year take place at this hospital. The hospital has been accredited as a 'baby-friendly hospital' by the Ministry of Health, which means that the hospital has accepted and is at the moment practicing the preliminary recommendations of the WHO/UNICEF initiative to encourage and support breast feeding.

Sample

The sample recruited into the study were consenting, literate fathers who had come to visit their wives and infants at the hospital, or whose wives were about to be discharged. Thus, fathers of healthy babies that had been born at term were the subjects that met the inclusion criteria for the research.

Fathers of stillborn babies, of babies who died after birth, or with medical conditions, were excluded from the study. The

participants were asked to fill out the questionnaires themselves and the data was collected in the hospital waiting room.

Over the course of the study, 400 births per month took place at the hospital. In the three-months duration of the research, 253 fathers were recruited. Because 15 fathers failed to complete the forms and 35 did not respond to some of the questions, the ultimate sample count was a total of 203 fathers.

Data analysis

Data was recorded and analysed and basic descriptive findings were set out using the SPSS (Statistical Package for the Social Sciences). Selected characteristics (age, education, family type, perception of income, position in birth order, method of birth) and the fathers' attitudes to and knowledge about breast feeding, breast-feeding initiation and duration, lactation were compared using χ^2 analysis. A *p*-level of 0.05 was considered statistically significant.

Ethical considerations

Permission for the study was obtained from the local ethics committee. Permission was also obtained from the Provincial Directorate of Health prior to the study. Fathers were asked for their informed consent after they had been provided with information about the purpose of the study.

Findings

Characteristics of participants

The study was completed with 203 fathers. A large majority of the fathers were between the ages of 25 and 35; mean age was 29.98 ± 5.35 (range: 18–47 years). The mean value for the number of children was 1.48 ± 0.69 (range: 1–5). These are comparable to national statistics (TDHS 2008). The socio-demographic characteristics of the fathers are given in Table 1.

Table 1
The characteristics of the study participants (*n*=203).

Characteristics	n	%
Age of father		
< 24	24	11.8
25–35	148	72.9
> 36	31	15.3
Educational status		
Elementary/middle school graduate	101	49.8
High school graduate	62	30.5
University graduate	40	19.7
Family type		
Nuclear family	156	76.8
Extended family	47	23.2
Perception of income status		
Low/poor income	51	25.1
Average/good income	152	74.9
Gender of newborn		
Female	94	46.3
Male	109	53.7
Number of children		
1 child	123	60.6
2 and more children	80	39.4
Type of birth		
Normal vaginal birth	75	36.9
Caesarean birth	128	63.1

Table 2
Knowledge of fathers about breast-feeding initiation and duration (*n*=203).

Questions	n	%
When should a baby first be breastfed?		
In the first hour after birth	122	60.1
On the day of birth/next day/three prayer times should pass	24	11.8
I don't know	57	28.1
How many months should babies be exclusively breastfed?		
4–6 months	85	41.9
Wrong answer	71	35.0
I don't know	47	23.1
How long should children be given mother's milk?		
Up until age 2	57	28.1
Wrong answer	106	52.2
I don't know	40	19.7

Fathers' knowledge about breast feeding and lactation and their attitudes

The fathers' knowledge about breast-feeding initiation and duration is presented in Table 2. Of the fathers, 60.1% gave the correct response that babies should be breastfed in the first hour after birth; 39.9% either said they didn't know or answered with responses such as 'in the first day/the next day/after three calls to prayer have passed'. All responses to the question, 'How many months should babies be exclusively breastfed before starting on supplementary foods?' that did not receive the response, '4–6 months' were considered to be wrong. While 41.9% of the fathers did provide the correct answer '4–6 months', 35% gave the wrong response and 23.1% said 'I don't know.' Again, all responses to the question, 'How long should children be given mother's milk?' that were not 'Up until age 2' were again considered to be wrong. It was found that 28.1% of the fathers provided the WHO-recommended response of 'two years' while 19.7% said 'I don't know' and about half (52.2%) indicated durations that differed from WHO (Table 2).

The fathers were asked when their wives had first breastfed their babies after birth and 46.8% responded, 'in the first hour', while 10.8% said either 'on the day of birth', indicating a time later than 1 hr, or made the response that 'three calls to prayer passed' (meaning approximately 12 hrs later).

The fathers' knowledge about and their attitudes toward breast feeding and lactation are indicated in Table 3. The responses of the fathers were 'Yes', 'No', or 'No idea'. Although a large majority of the participants (92.1%) wanted their infants to be breastfed, only 58.6% were found to have talked to their wives about this. When fathers were asked who they would like to have support their wives in breast feeding, 68% responded by saying they wished for support from one of the baby's grandmothers. Another close percentage of fathers (69.5%) wanted to be the person supporting the wife, and 88.7% indicated that they would be happy to help with the household chores so that the wife could comfortably breast feed the baby. About half of the fathers (50.2%) indicated that they would be uncomfortable having their wives breast feed their babies in public places (buses, taxis, parks, etc.). While 44.3% of the fathers found nothing wrong with giving a breast-feeding baby a bottle or pacifier, about one-fourth (27.6%) were averse to the thought and 28.1% said they had no idea. The fathers were also asked to evaluate breast feeding in terms of mother and child health. It was seen that 47.8% of the fathers said that breast feeding did not prevent a woman from becoming pregnant again; 37.9% said they had no idea about this. A large majority of the fathers (85.7%) said that breast feeding protected an infant from disease, 57.6% said that it had a positive psychological impact on both the baby and the mother; 24.1% said they had no idea. A large majority of fathers (81.8%) indicated that

Table 3
Paternal knowledge about and attitude towards breast feeding and lactation (n=203).

Statements	Yes n (%)	No n (%)	No idea n (%)
I would want my baby breastfed	187 (92.1)	7 (3.5)	9 (4.4)
I discussed breast feeding our baby with my wife	119 (58.6)	79 (38.9)	5 (2.5)
I would want my baby's maternal or paternal grandmother to support my wife in breast feeding	138 (68.0)	46 (22.7)	19 (9.3)
I would prefer to be the one to support my wife in breast feeding	141 (69.5)	29 (14.2)	33 (16.3)
I would want to help my wife with the household chores so that she can breast feed the baby comfortably	180 (88.7)	11 (5.4)	12 (5.9)
I would be uncomfortable if my wife breastfed the baby in public places (busses, taxis, parks, etc.)	102 (50.2)	69 (34.0)	32 (15.8)
There's nothing wrong with giving a breast feeding child a bottle or pacifier	90 (44.3)	56 (27.6)	57 (28.1)
Breast feeding prevents a mother from getting pregnant again	29 (14.3)	97 (47.8)	77 (37.9)
Breast feeding protects a baby from diseases	174 (85.7)	6 (3.0)	23 (11.3)
Breast feeding has a positive psychological impact on both the mother and the baby	117 (57.6)	37 (18.3)	49 (24.1)
Breast feeding can harm a mother's general health	10 (4.9)	166 (81.8)	27 (13.3)
Breast-feeding mothers have to eat a special diet	167 (82.3)	14 (6.9)	22 (10.8)
Breast feeding spoils a woman's physical appearance	27 (13.3)	140 (69.0)	36 (17.7)
Women lose their attractiveness in the breast-feeding period	25 (12.3)	138 (68.0)	40 (19.7)
Breast feeding has a negative effect on sexuality	35 (17.2)	128 (63.1)	40 (19.7)
Men feel that they have been neglected during the breast-feeding period	40 (19.7)	131 (64.5)	32 (15.8)
The first milk that comes in after the birth shouldn't be offered to the baby; the baby should be artificially fed	41 (20.2)	111 (54.7)	51 (25.1)
Artificial milk food is richer in vitamins than mother's milk	27 (13.3)	131 (64.5)	45 (22.2)
If the baby is given mother's milk and not artificial milk food, it will not grow	35 (17.2)	113 (55.7)	55 (27.1)
If I could afford it, I would want my baby to be exclusively artificially fed	16 (7.9)	157 (77.3)	30 (14.8)
Drugs are transmitted to the baby through mother's milk	130 (64.0)	11 (5.4)	62 (30.6)
I think that fathers should be given breast-feeding education	99 (48.8)	58 (28.6)	46 (22.6)

breast feeding in general did not harm a mother's general health. Of the fathers, 69% asserted that breast feeding did not spoil a woman's physical appearance, 68% said that breast feeding did not detract from a woman's attractiveness.

In the assessment of the fathers' knowledge about lactation, it was found that 20.2% said that the first milk to come in after birth should not be given to the baby and that instead, artificial milk food should be given. Another 54.7% were in favour of giving the colostrum and not offering artificial milk; 25.1% said they had no idea on this. A group of 13.3% said that artificial milk food was richer in vitamins compared to mother's milk while 22.2% said they didn't know. It was also found that 17.2% of the fathers said that mother's milk could be offered but that the baby would not grow without artificial milk food; 27.1% had no idea. It was seen that 7.9% of the fathers expressed the desire to feed the baby with artificial milk food if they could afford it. Most fathers (64%) stated that drugs could be transmitted to the baby through mother's milk; 30.6% of the fathers said they had no idea about this.

Approximately half of the fathers (48.8%) expressed their thought that fathers should be given breast-feeding education, 28.6% indicated that they felt no need for this, and 22.6% had no idea about the subject (Table 3).

A large majority of the fathers (92.6%) said that they had accompanied their wives for their check-ups during the course of the pregnancy. Of the fathers, 59.1% (n=120) indicated that they had received information about lactation and breast feeding; of the participants who received information, 46.7% said they received this information from health professionals and 53.3% responded by saying that they had obtained the information from their family elders, friends and from the printed/visual media. Of the men who said that they had not received any prior information, 69.9% (n=83) indicated an interest in acquiring such information. All of the fathers expressed the opinion that breast feeding did not create problems between the mother and father.

The association between demographic data and breast feeding and lactation

The associations between demographic data and paternal knowledge and attitude to breast feeding and lactation are given in Table 4.

Discussion

Babies have naturally and traditionally been nurtured with mother's milk (Küçükosmanoğlu et al., 2001; Tohotoa et al., 2009). People's societal roles, cultural values and lifestyles, however, have rapidly changed due to the growing speed of industrialization and urbanization. The shift from the rural to the urban lifestyle has resulted in a loss of family support, which may have led to the problems currently experienced in breast feeding. Commercial artificial milk foods have been produced in an effort to overcome these problems and thus, the breast-feeding culture has begun to be replaced with a new artificial milk-feeding culture. In recent years, research has confirmed that breast feeding is an essential element of infant nourishment and it has been accepted that mothers need to be supported in providing their infants with their own milk (Küçükosmanoğlu et al., 2001; Akyüz et al., 2007). It is of vital importance that mothers are supported and encouraged to breast feed their babies and that new approaches are devised to regain the lost culture of breast feeding. In this context, attention has been called to the paternal role and the importance of fathers supporting their wives in breast feeding (Küçükosmanoğlu et al., 2001; Shaker et al., 2004). In Turkey, the belief has been expressed that breast-feeding rates would increase if fathers in particular could support their wives in the breast-feeding process, which is inevitably a practice that has distinctly emotional components (Küçükosmanoğlu et al., 2001). It is important that mothers and fathers talk to one another about nourishing their baby, making a joint decision on how the infant will be fed. In this study, it was found that a large majority of the fathers (92.1%) had a positive outlook on breast feeding and wanted their babies breastfed, but only slightly more than half of the participants had talked to their spouses about this. Another study of expectant fathers conducted in Turkey similarly reported that 99% wanted their babies to be breastfed but that 54% had not discussed this with their wives (Küçükosmanoğlu et al., 2001). In studies carried out in the U.S., 81% of the fathers in one study, and 90% of prospective fathers in another study, had expressed the desire that their partners breast feed their infants (Freed et al., 1992; Pollock et al., 2002). Although these findings are consistent with the results of the present study, it can be seen that in Hong Kong, a smaller percentage (42.2%) of fathers display a preference for breast feeding (Kong and Lee, 2004).

Table 4
The association between demographic data and breast feeding and lactation (n=203).

The characteristics	Breast feeding has a positive psychological impact on both the mother and the baby			
	Yes n (%)	No n (%)	No idea n (%)	
Educational status				
Elementary/middle school graduate	42 (41.6)	23 (22.8)	36 (35.6)	$\chi^2=31.320, p=0.000$
High School graduate	40 (64.5)	14 (22.6)	8 (12.9)	
University graduate	35 (87.5)	-	5 (12.5)	
Number of children				
1 child	68 (55.3)	18 (14.6)	37 (30.1)	$\chi^2=7.077, p=0.029$
2 and more children	49 (61.3)	19 (23.7)	12 (15.0)	
Family type				
Nuclear family	97 (62.2)	22 (14.1)	37 (23.7)	$\chi^2=8.750, p=0.013$
Extended family	20 (42.6)	15 (31.9)	12 (25.5)	
Received information on lactation and breast feeding				
Yes	78 (65.0)	19 (15.8)	23 (19.2)	$\chi^2=6.689, p=0.035$
No	39 (47.0)	18 (21.7)	26 (31.3)	
		Breast feeding has a negative effect on sexuality		
	Yes	No	No idea	
Educational status				
Elementary/middle school graduate	22 (21.8)	52 (51.5)	27 (26.7)	$\chi^2=2.866, p=0.012$
High School graduate	6 (9.7)	47 (75.8)	9 (14.5)	
University graduate	7 (17.5)	29 (72.5)	4 (10.0)	
Number of children				
1 child	19 (15.5)	71 (57.7)	33 (26.8)	$\chi^2=10.030, p=0.007$
2 and more children	16 (20.0)	57 (71.3)	7 (8.7)	
		The first milk that comes in after the birth shouldn't be offered to the baby; the baby should be artificially fed		
	Yes	No	No idea	
Educational status				
Elementary/middle school graduate	27 (26.7)	45 (44.6)	29 (28.7)	$\chi^2=10.668, p=0.031$
High School graduate	10 (16.1)	37 (59.7)	15 (24.2)	
University graduate	4 (10.0)	29 (72.5)	7 (17.5)	
		Artificial milk food is richer in vitamins than mother's milk		
	Yes	No	No idea	
Educational status				
Elementary/middle school graduate	18 (17.8)	51 (50.5)	32 (31.7)	$\chi^2=18.331, p=0.001$
High School graduate	7 (11.3)	47 (75.8)	8 (12.9)	
University graduate	2 (5.0)	33 (82.5)	5 (12.5)	
Family type				
Nuclear family	17 (10.9)	108 (69.2)	31 (19.9)	$\chi^2=6.832, p=0.033$
Extended family	10 (21.3)	23 (48.9)	14 (29.8)	
		There's nothing wrong with giving a breast-feeding child a bottle or pacifier		
	Yes	No	No idea	
Family Type				
Nuclear family	63 (40.4)	43 (27.6)	50 (32.0)	$\chi^2=6.158, p=0.046$
Extended family	27 (57.4)	13 (27.7)	7 (14.9)	
		Men feel that they have been cast aside during the breast-feeding period		
	Yes	No	No idea	
Family Type				
Nuclear family	24 (15.4)	111 (71.1)	21 (13.5)	$\chi^2=13.224, p=0.001$
Extended family	16 (34.0)	20 (42.6)	11 (23.4)	
Received information on lactation and breast feeding		When should a baby first be breastfed?		
		In the first hour after birth	On the day of birth/next day/three prayer times should pass	I don't know
Yes	83 (69.2)	12 (10.0)	25 (20.8)	$\chi^2=10.328, p=0.006$
No	39 (47.0)	12 (14.4)	32 (38.6)	
Educational status				
Elementary/middle school graduate	50 (49.5)	12 (11.9)	39 (38.6)	$\chi^2=13.866, p=0.008$
High School graduate	42 (67.7)	6 (9.7)	14 (22.6)	
University graduate	30 (75.0)	6 (15.0)	4 (10.0)	

Table 4 (continued)

The characteristics	Breast feeding has a positive psychological impact on both the mother and the baby			
	Yes n (%)	No n (%)	No idea n (%)	
Received information on lactation and breast feeding	How many months should babies be exclusively breastfed?			$\chi^2=8.937, p=0.011$
	4–6 months	Wrong answer	I don't know	
Yes	56 (46.7)	45 (37.5)	19 (15.8)	
No	29 (34.9)	26 (31.3)	28 (33.7)	
Educational status	How long should children be given mother's milk?			$\chi^2=13.319, p=0.010$
	Up until age 2	Wrong answer	I don't know	
	Elementary/middle school graduate	41 (40.6)	27 (26.7)	
High School graduate	25 (40.3)	26 (41.9)	11 (17.8)	
University graduate	19 (47.5)	18 (45.0)	3 (7.5)	
Received information on lactation and breast feeding	How long should children be given mother's milk?			$\chi^2=10.210, p=0.006$
	Up until age 2	Wrong answer	I don't know	
Yes	39 (32.5)	66 (55.0)	15 (12.5)	
No	18 (21.7)	40 (48.2)	25 (30.1)	
Educational status	How long should children be given mother's milk?			$\chi^2=10.979, p=0.027$
	Up until age 2	Wrong answer	I don't know	
	Elementary/middle school graduate	27 (26.7)	45 (44.6)	
High School graduate	17 (27.4)	38 (61.3)	7 (11.3)	
University graduate	13 (32.5)	23 (57.5)	4 (10.0)	
Family type	How long should children be given mother's milk?			$\chi^2=6.260, p=0.044$
	Up until age 2	Wrong answer	I don't know	
Nuclear family	44 (28.2)	87 (55.8)	25 (16.0)	
Extended family	13 (27.7)	19 (40.4)	15 (31.9)	

Breast feeding necessitates an appropriate physical and emotional environment in order to provide the desired duration of breast feeding. In Turkish culture, in accordance with traditional mores, the woman is usually supported by her mother and/or mother-in law in the puerperal period. This is generally a desired support but practical knowledge on breast feeding that is transferred to the baby's mother may sometimes be incorrect. The husband's emotional support and assistance in the household have become increasingly more important in the rapid transition from extended to nuclear families. In our study, most of the fathers (68%) wanted grandmothers to support their wives and 22.7% did not. The majority of fathers (69.5%) preferred to be the one to provide the support and a large majority (88.7%) were willing to help with the housework so that the baby could be comfortably breastfed. This may be taken as an indication that mothers may well have the opportunity to experience a comfortable and long period of breast feeding in which they will be relieved of much of their household duties. In a study carried out in Bristol, mothers who had the support and encouragement of midwives and family members such as grandmothers were found to have breast-feeding periods that lasted through the first six weeks, longer than mothers who did not have this support (Ingram et al., 2002). In Australia, one study reported that emotional, practical and physical support provided by the father promoted successful breast feeding and enhanced the experience for the mother as well as for the father (Tohotoa et al., 2009). Sherriff et al. (2009) found in their interviews with eight fathers that there was a positive outlook toward breast feeding; the fathers supported their wives in many ways that included helping out with housework, giving emotional support, and supporting breast feeding in public. Rempel and Rempel (2011), in their study of 21 fathers of breast-fed babies in Canada, found that fathers considered themselves to be part of the breast feeding team. They accepted that their primary roles as fathers was to support their wives in breast feeding by assisting them in household tasks and providing emotional support by making them feel appreciated. Women who believe that their husbands have a positive view of breast feeding are quicker to initiate breast

feeding and their breast-feeding durations are longer (Scott et al., 2001).

Fathers were asked in the study about their thoughts on breast feeding in public places such as busses, parks and taxis. Half of the fathers (50.2%) indicated that they would be uncomfortable having their wives breast feed in public places. In Turkish culture, people have the tendency to disdain and reproach mothers who breast feed in public. The viewpoint of the fathers in the study was in line with this cultural characteristic. This attitude is not peculiar to Turkish men, however, as can be seen in a study in the U.S. which reported that a majority of fathers – 78% of which were fathers of artificial milk-feeding and 71% of breast-feeding infants – thought breast feeding to be unacceptable in public (Freed et al., 1992). Pollock et al. (2002), in their study, revealed that fathers believed that breast feeding was either unacceptable in public (29%) or embarrassing (34%). In another study, fathers of both artificial milk and breast-feeding infants displayed more embarrassment than their spouses about the mother's breast feeding in the presence of family members (Shepherd et al., 2000). Shaker et al. (2004) found that the percentage of fathers believing that babies should not be breastfed in public places such as restaurants was higher than the percentage of mothers who had the same belief.

Some of the positive results that were derived from the current study included the fact that a large majority of fathers believed that breast feeding protected the baby from illness and also the idea that breast feeding did not harm a mother's general health. In addition, a majority of fathers were of the opinion that drugs found their way into the baby's system through breast feeding and that breast feeding was psychologically beneficial to both mother and baby. Pollock et al. (2002) found that 74% of fathers believed mother's milk to be healthier for the baby compared to other foods and that 85% felt that drugs and narcotics could pass into the baby's system through the milk ducts. Shaker et al. (2004) showed in their study that more fathers with breast-feeding babies, compared to fathers with artificial milk-feeding babies, felt that mother's milk was the ideal food for an infant and that infants that were breastfed were healthier babies.

In the context of exploring whether breast feeding would create problems between mother and father, it was found that all of the fathers questioned stated that it would not. However, about one out of every three fathers did state their belief that breast feeding would spoil a woman's physical appearance, that women would look less attractive during the breast-feeding period or that men would feel neglected; two out of every five fathers said that the breast-feeding period would have a negative effect on their sex lives. Studies have revealed inconsistent results in this respect. A study carried out in the U.S. reported that about half (52%) of prospective fathers who wanted their babies to be artificially fed instead of breastfed stated that breast feeding would spoil the appearance of the woman's breasts and most of the fathers (72%) offered the view that breast feeding would hinder their sex lives (Freed et al., 1992). Another study in the U.S. reported just the contrary; in this research, almost all of the fathers (98%) were found to believe that breast feeding would not affect their sex lives (Pollock et al., 2002).

In the present study, about one out of three fathers stated their belief that artificial milk food was richer in vitamins than mother's milk or had no opinion on this subject at all. Another 44.3% said that if mother's milk was given exclusively without artificial milk food, the baby would not gain weight, or had no opinion on this subject at all. A group of 77.3% of the fathers had a positive outlook, stating that they would not want their babies to be exclusively artificially fed, even if they had the material resources to support this. In a study of prospective fathers, Küçükosmanoğlu et al. (2001) established that a large majority of fathers stated that breast feeding was not inferior to artificial milk-feeding in terms of nutrition which is harmony with our findings. Results obtained from our study suggest that fathers are misinformed by the people around them or are uninterested in the baby's nutrition, instead paying more attention to the material aspects of feeding a baby. While more than half of the fathers (60.1%) said that babies should start to be breastfed within 1 hr after birth, it is seen that widespread misconceptions in the general public regarding colostrum are also common among fathers as well. Of the fathers, 45.3% stated that babies should not be given colostrum, that babies should be artificially fed, or that they had no opinion on the subject. It was noted that the fathers in the study had limited knowledge about when breast feeding should take place. When asked the question, 'How many months should babies be exclusively breastfed?' only 41.9% fathers replied 4–6 months, which is the recommendation of WHO and is what Turkey has adopted and is implementing as a breast-feeding policy. On the subject of whether babies should be breastfed until they are two years old, only 28.1% of the fathers gave the correct answer. In another study carried out in Turkey, a higher percentage (66%) was found of prospective fathers who said that babies should be exclusively breastfed for 4–6 months (Küçükosmanoğlu et al., 2001). Fathers were asked when their wives initiated breast feeding their infants and 46.8% said this occurred in the first hour after birth. Another 10.8% however stated that the breast feeding had begun on the day of birth but at a time past the first hour, or that breast feeding took place after there had been three calls to prayer (about 12 hr later). The information gathered from TDHS 2008 about the time breast feeding is initiated indicates that mothers in Turkey are considerably late in starting to breast feed. Only 39% of breast-fed babies start breast feeding within the first hour after birth; 27% are still not breastfed at the end of the first 24 hr. The breast-feeding rate in the first hour of birth in the city in which the present study took place, which is located in the western region of Turkey, is reported to be 48% (Yiğit et al., 2008). These findings are consistent with the present study.

Limitations

There were a few limitations to this study. Because the research was carried out in only one hospital and mostly among low-income families who comprised the majority of that hospital's patients, the results of the study can only be generalized to a limited extent to cover other institutions. More studies need to be carried out in hospitals where higher-income families are the majority. Moreover, the sampling of the study is small and cannot be generalized to include other geographical regions. A husband's visit to the hospital to see his wife and new baby is an indication of his interest and support. On the other hand, men who do not come to the hospital may not be unsupportive. Studies to determine how men act in different environments would be useful.

Conclusion

It was clearly seen in this study that fathers look favourably upon the breast feeding of their infants but that they do not discuss these feelings with their wives and have limited knowledge about lactation and breast feeding. The study also showed that fathers' level of education, the family type and whether or they had previously received education on lactation and breast feeding had an effect on their knowledge and approach. Considering the role fathers have in the family's decision-making, it is clearly of great importance that they be included in educational programmes on lactation and breast feeding. Health professionals should make the effort to ensure that fathers are given information and education about the benefits of breast feeding and that they are encouraged to encourage their partners in turn.

It can be suggested that including prospective fathers in prenatal breast-feeding promotion classes planned for mothers within a framework of social, cultural and family mores may lead fathers to be more supportive of their wives. It could also be suggested that conducting more studies on breast feeding with larger populations at major health centres might serve to provide a means of fully understanding the impact of paternal knowledge and spouse support on the initiation and duration of breast feeding. Moreover, we think that an eleventh item recognizing that fathers too should be provided with education in lactation and breast feeding should be added to the 'Ten Steps to Successful Breast feeding.'

Clinical implications

All attempts of health professionals to raise percentages and adopt implementation strategies for breast feeding may be fruitless unless paternal knowledge and attitudes on breast feeding and lactation are better understood. Fathers' desires to be included in decisions concerning their baby's nourishment should be recognized. If levels of paternal knowledge and attitudes toward breast feeding and lactation can be identified, the reasons for fathers' willingness or unwillingness to support the practice will be clarified as well. Most important, it is believed that the spouse's positive attitude regarding breast feeding can have a significant effect on the mother and that men can play an important role in culture-specific training programmes on breast feeding developed for husbands and wives together (Ingram et al., 2002; Pollock et al., 2002; Tohotoa et al., 2009). The present study showed that a large majority of the fathers (92.6%) accompanied their wives on visits to the doctor during the pregnancy and that more than half of the fathers had previously received information about breast feeding and lactation; 46.7% said they obtained this information from health professionals. Although the percentage of fathers accompanying their wives to the doctor was high, the

percentage of fathers receiving information about breast feeding and mother's milk, especially those fathers who received this information from health professionals, was found to be low. It can be surmised that the reason that fathers' knowledge about breast feeding and mother's milk is inadequate is that fathers are not included in prenatal training courses; they may also be unwilling to participate in such a course or the education provided may be of poor quality. In Turkey, where holding prenatal classes is not a widespread practice, it may be beneficial for health professionals, especially midwives, to pay more attention to drawing spouses of pregnant women into breast-feeding promotion programmes.

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