ORIGINAL RESEARCH

EVALUATION OF INITIATING, CONTINUING AND WEANING TIME OF BREASTFEEDING

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ABSTRACT

Objective: The aim of this study was to evaluate the knowledge and behavior of mothers related to the initiation time, duration and affecting factors of breastfeeding.

Methods: This descriptive and cross-sectional study included 214 mothers who had children aged between 1-72 months. These mothers were selected from the pediatric policlinics of the Meram Medical Faculty. Data were obtained via questionnaire form by interviewing. Statistical analyses were performed using the software package SPSS version 10.0.

Results: The mean age of the mothers was 28.96 (SD±6.06). 187 mothers (87.4 %) delivered in the hospital. 20 mothers (9.3 %) delivered in a primary health care center. The rate of exclusive breast-feeding for at least 6 months was 37.7 %. The rate of breast-feeding initiation time in the first 1-2 hours after delivery was 78.9 %. The mean breast-feeding weaning duration was 10.6 months (SD±5.69).

Conclusion: In our study, 96.7 % of the mothers delivered their babies in a hospital or primary health care center under the control of a nurse or a doctor. All health professionals should have the necessary knowledge and skills in order to protect, promote and support breastfeeding. Consequently, prenatal and postnatal breastfeeding education and support courses should be provided everywhere.

Keywords: Breastfeeding, Education program, Mother's health

ANNE SÜTÜNE BAŞLAMA, DEVAM VE KESME ZAMANININ DEĞERLENDİRİLMESİ

ÖZET

Amaç: Bu çalışmada anne sütüne ilk başlama zamanı, süresi ve bunu etkileyen faktörlerle ilgili annelerin bilgi ve davranışlarını değerlendirmeyi amaçladık.

Yöntem: Tanımlayıcı ve kesitsel tipteki bu çalışma 1-72 aylık bebeği olan 214 annede yapıldı. Çalışmaya katılan anneler Meram Tıp Fakültesi çocuk kliniğinden seçildi. Veriler anket yoluyla ve yüz yüze görüşülerek elde edildi. İstatistik analizler bilgisayarda SPSS 10.0 programı kullanılarak yapıldı.

Bulgular: Annelerin yaş ortalaması 28,86 (SD±6.06) olup, 187 anne (%87.4) hastanede, 20 anne(%9.3) sağlık ocağında doğum yapmıştı. En az 6 ay süre ile etkili anne sütü verme sıklığı %37.7. idi. Doğumdan sonraki ilk 1-2 saat içinde anne sütüne başlama sıklığı %78,9 olup, anne sütünü kesme süresinin ortalama değeri 10,6 ay (SD±5.69) idi.

Sonuç: Bizim çalışmamızda tüm annelerin %96,7'si hastane veya bir sağlık ocağında hekim ya da bir hemşire kontrolü altında doğum yapmıştı. Bu nedenle, sağlık personeli anne sütünün desteklenmesi, korunması ve devam ettirilmesi konularında gerekli bilgi ve beceriye sahip olmak zorundadır. Bu yüzden, her yerde doğum öncesi ve sonrası anne sütü eğitimi ve destekleme kursları düzenlenmelidir.

Anahtar Kelimeler: Anne sütü, Eğitim programı, Anne sağlığı

INTRODUCTION

Breast milk is the ideal food for newnates and infants. Breastfeeding also has many advantages in regard to the mother's health[1-4].Breast milk contains many different kinds of biologically active compounds including hormones, cytokines and enzymes which are important not only for the maturation of the immune system but also for neurological development, especially in premature infants. Breastfeeding is the healthiest way to feed

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a baby. It is possible, but difficult, for mothers to reverse a decision not to breastfeed or to re-start breastfeeding once they have stopped. Introducing partial bottle feeding will reduce a mother's breast milk supply[5-7].

Epidemiologic research shows that human milk and breastfeeding of infants provides advantages in terms of general health, growth and development. Breastfeeding also significantly decreases the risk of a large number of acute and chronic diseases. In addition to reducing childhood infections, breastfeeding may also protect against sudden infant death syndrome, insulin-dependent diabetes mellitus, Crohn's disease, ulcerative colitis, lymphoma, allergic diseases and other chronic digestive diseases.[5,8,9] Breastfeeding has also been related to possible enhancement of cognitive development.[6,10]

There are also a number of studies that indicate some possible health benefits of breastfeeding for mothers. It has been known for a long time that breastfeeding increases the level of oxytocin, resulting in less postpartum bleeding and more rapid uterine involution. Lactational amenorrhea causes less menstrual blood loss over the months after delivery. A lactating woman returns to her normal weight much earlier. The risk of ovarian cancer and pre-menopausal breast cancer decreases.[6,11]

The Baby Friendly Hospital Initiative (BFHI) is a global program initiated in 1991 by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) in response to the Innocent Declaration (1990)[12]. WHO and UNICEF recommend exclusive breastfeeding until the sixth month and breastfeeding combined with a gradually diversified food intake until the age of 2.[1,6,13,14]

In practical terms, a Baby Friendly Hospital/Maternity facility encourages and helps women to successfully initiate and continue to breastfeed their babies. Since the inception of the program, over 15,000 hospitals worldwide have received the Baby Friendly designation[12].

We planned this study as a pre-test before starting education related to BFHI. In this study, we aimed to evaluate the knowledge and behavior of mothers related to the initiation time, duration and affecting factors of breastfeeding.

METHODS

This descriptive and cross-sectional study was carried out among 214 mothers who had 1-72 months old babies between July 10th and December 30 th 2003. The hospitals where the deliveries took place were not taken into consideration but the types of delivery were listed. After finishing this study, the midwives, nurses, pediatricians and gynecologists were trained in a three-day course on the Ten Steps to successful breastfeeding. In this training and promotion course, the techniques, benefits, initiation, continuing and weaning time of breastfeeding were explained. It is emphasized that breastfeeding should begin as soon as possible after birth, usually within the first half hour, and exclusive breastfeeding should continue for the first 6 months. It is also recommended that breastfeeding continue for at least 24 months.[1,14] In the pediatric hospital, a breastfeeding room was organized. Posters supporting breastfeeding were placed on the walls of the hospital. Booklets informing all pregnant women and lactating mothers about the benefits and management of breastfeeding were delivered. An exclusive handout about breastfeeding policy for all health care staff was prepared. We held public meetings to advertise the Baby Friendly Hospital Initiative. Then we organized breastfeeding support groups between mothers. We plan to carry out another study to evaluate the results obtained from the breastfeeding education program later on.

A pediatrician interviewed mothers who were included in this study. Information was recorded on a standardized form. The questionnaire included 21 items and revealed the women's sociodemographic characteristics, education and details of the pregnancy, economic status, smoking habit during pregnancy, type of delivery, place of delivery, smoking status of their husbands, child's weight and height characteristics at birth, initiation of breastfeeding, duration of exclusive breastfeeding, the weaning of breastfeeding, and the use of a pacifier.

The commercial SPSS 10.0 software was used for data entry on the computer. This software was also used in the classification and statistical analyses. The variables were described by frequency, mean and standard deviation (SD). The Chi–square test was used for statistical analysis. $P<0.05$ was considered significant.

RESULTS

The mean age of the mothers was 28.96 (SD±6.06). Sixty-one mothers were primiparous and one hundred and eighty-seven mothers delivered their babies in a hospital. All the women were married. Twenty babies were delivered by the help of a midwife in a primary health care center,and seven mothers delivered spontaneously at home. The mean age (month) of the last baby was 20.9 (SD±16,89) and the mean birth weight (g) of the last baby was 3075.2 (SD±399,13). The sociodemographic characteristics and perinatal conditions of mothers and infants are shown in Table I. Three mothers refused to breastfeed. The rate of breastfeeding initiating time in the first 1-2 hours after delivery was 78.9 %. 175 babies were aged 6 months and older. In this group, the rate of exclusive breastfeeding for at least 6 months was 37.7 %. The mean weaning time was 10.6 months (SD±5.69). The breastfeeding characteristics of the babies are shown in Table II.

Table 1: Sociodemographic characteristics and perinatal conditions of mothers and infants

Characteristics	n	%
Maternal demographics		
Age (years)		
18-23	28	13.1
24-29	105	49.1
30-35	47	22.0
36 and over	34	15.8
Education		
Illiteracy	10	4.7
Primary School	102	47.7
Middle and High School	60	28.0
University	42	19.6
Employment		
Housewife	175	81.8
White-collar	34	15.9
Blue-collar worker	5	2.3
Consanguinity with her husband	45	21.0
To share the same house with a grandparent	55	25.7
Presence of handicapped child among close relatives	22	10.3
Smoking status of husbands	113	52.8
Perinatal conditions		
Smoking during pregnancy and lactation	19	8.9
Number of prenatal visits during the last pregnancy		
None	18	8.4
1-3	65	30.4
4-6	48	22.4
7 and ↑	83	38.8
Primiparous	61	28.5
Place and type of delivery		
Home,self-delivery	7	3.3
Primary health care center, by a midwife	20	9.3
Hospital	187	87.4
Delivery by cesarean section	63	29.4
Last child's characteristics		
Age (month)		
0-6	50	23.4
7-12	50	23.4
13-18	25	11.7
19-24	27	12.5
25 and over	62	29.0

The status of breastfeeding initiation after delivery between normal spontaneous delivery and cesarean section was significantly different (X^2=32.653, p=0.000) as shown in Table III.

In the group of babies aged over 1 year (n=131), the rate of the continuing breastfeeding until the 12th month and breastfeeding combined with a gradually diversified food intake was 38.9%.

The rate of using pacifier was significantly lower among children exclusively breast-fed until the sixth month than among the children exclusively breastfed until the fourth month (p=0.001).

In the 6 month or over exclusive breastfeeding group, the prevalence of initiation of breastfeeding within half an hour was higher than in the group who was exclusively breastfed for less than 4 months (p=0.004).

There was no significant difference between the educational levels of the mothers and the rate of exclusive breastfeeding for at least 6 months (p=0.159).

There was no significant difference between the employment status of the mothers and the rate of exclusive breastfeeding for at least 6 months (p=0.996).

Table II: The breastfeeding characteristics of the babies

Breastfeeding Characteristics	**n**	**%**
Initiation of breastfeeding		
Within 30 minutes after delivery	85	39.7
Within 1-2 hours after delivery	84	39.2
Later	45	21.1
Interval of breastfeeding		
Whenever baby wants	193	90.2
Specific interval	21	9.8
At least 6 months exclusive breastfeeding	66	37.7
Breast discomfort or infection	79	36.9
Artificial nipple	100	46.7
Weaning of breastfeeding ([x])		
0-5 months	32	23.2
6-11 months	53	38.4
12-17 months	31	22.5
18-23 months	10	7.2
24 months and over	12	8.7
Duration of exclusive breastfeeding (month)		
1 month	172	98.3
3 months	142	81.1
6 months	66	37.7

[x] current breastfeeding (n=76) were not included

Table III: The status of breastfeeding initiation after delivery and kind of delivery

Breastfeeding status	**Normal spontaneous delivery**		**Cesarean section**	
	%	**n**	**%**	**n**
Within 30 minutes	81.2	69	16.8	16
Within 1-2 hours	67.9	57	32.2	27
Later	35.6	16	64.4	29
Total	66.4	142	33.6	72

X^2=32.653, p=0.000

DISCUSSION

Before discussing the results, the limitations of the study must be considered. The cases who applied to pediatric policlinics for any reason within a certain period were included in this study. The research period can be found as short by some. In addition, although quite a close match, the sample was not entirely representative of the Turkish population. The rates of breastfeeding may be considered low, as this study was carried out before BFHI.

Breastfeeding is the best form of nutrition for infants. Family physicians and healthcare workers can have a significant role in the initiating and

maintenance of breastfeeding if they have sufficient knowledge of the benefits of breastfeeding and the necessary clinical management skills or habits. Over one million infants worldwide die every year because they are not breastfed or because they are given other foods too early. Millions of people live in poor health, exposed to preventable diseases and malnutrition. A woman's ability to feel self confidence and secure with her decision to breastfeed are challenged by her family and friends, the media, and health care providers[1,13,15].

The rate of breastfeeding initiation within the first 1-2 hours after delivery was 78.9 % and after two hours it was 21.1 %. The rate of breastfeeding initiation within the first 1-2 hours in normal spontaneous delivery significantly showed higher prevalence than in cesarean section cases (X^2=32.653, p=0.000). Cesarean delivery (C/S) has a negative effect on early, successful breastfeeding.[16,17] We recommend that an attempt be made to initiate lactation before the end of the first hour (and no later than two hours) after the birth following cesarean delivery. Positioning may be more difficult because of postoperative pain after C/S. The lateral decubitus position for breastfeeding might be preferable. Special pillows may also be used to provide support for breastfeeding.[16]

The rate of breastfeeding whenever the baby wanted was 90.2 %, and the ratio of breastfeeding with certain intervals was 9.8 %. This finding shows similarity to the recommended breastfeeding practices of WHO.[11,14]

In our study, in the group of babies aged 6 months and older , exclusive breastfeeding rates in the 1st, 3rd and 6th months postpartum were 98.3 %, 81.1 % and 37.7 % respectively. According to Anne Merewood, MA, IBCLC, in 2001, the mean breastfeeding initiation rate in US Baby- Friendly hospitals was 84.8%, compared to a national breastfeeding initiation rate of 69.5%.[18] According to Kramer MS. et al, the exclusive breastfeeding rate at 6th month was 7.9% in the Republic of Belarus in 1997.[19] Durand M. et al evaluated a training program about breast feeding at the maternity section of Obstetrics, Gynecology and Reproductive Medicine at Grenoble University Hospital Center in 2002. The exclusive breastfeeding rates in a pre-and post sample survey were 14.0% and 28.0% respectively. In the same study, the initiating rate of breastfeeding was 76.0%.[1] In our study, this rate was higher. In the group of babies older than 1 year (n=131), the ratio of breastfeeding until the 12th month combined with a gradually diversified food intake was 38.9 %. Whereas, breastfeeding education, lactation consultation, and other postpartum supports may improve a woman's chance of starting and continuing to breast-feed her baby.[5,11,15]

Breast discomfort or infection was seen in 36.9% of all mothers. If the mothers are well-informed this negative rate can decrease.

The rate of using an artificial nipple was 46.7 % (n=100). This rate was significantly lower in exclusively breastfed babies for six months, than among babies exclusively breastfed for less than four months (p=0.001). The use of an artificial nipple is an unhealthy habit.[14,16] Unfortunately, the nonexclusive breastfeeding group has a tendency to use a pacifier.

In our study, most of the mothers were from middle/low educational levels. The educational level and working status did not significantly affect the rate of exclusive breastfeeding for at least 6 months.

The rate of smoking during pregnancy and lactation was 8.9 %. This rate was lower than in other countries.[20-23] Smoking is an important public health problem. Especially, during pregnancy and lactation, smoking negatively affects both the mother's and the baby's health. To prevent and reduce tobacco use in the young and in pregnancy, further research should be carried out to develop more effective smoking cessation programmes.[23,24]

In our country, traditional marriages between relatives are common. In this study, the rate of relativity among couples was 21 %. To share the same house with grandparents is also a traditional custom. This rate was 25.7 %. Having a grandparent in the same house positively supports and encourages this ideal form of nutrition for infants.

Human milk is the preferred feeding for all infants, including premature and sick newborns.[11] Prenatal support, hospital management and subsequent pediatric and maternal visits are all-important components of breastfeeding promotion.[2,5,15,17] Therefore, health professionals should have the necessary knowledge and skills for managing the different stages of lactation.

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