

Assessment of levels of knowledge of breastfeeding counseling of health personnel working in primary health care institutions

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Abstract

Aim: The aim of this study is to evaluate the knowledge level of breast milk and breastfeeding of health professionals working in primary health care institutions in Malatya.

Material and Methods: A Cross-sectional Study's survey prepared by using the Handbook of Breastfeeding Counseling translated by Child and Adolescent Reproductive Health Branch of the Ministry of Health of Turkey. 778 people were contacted by the interviewers by visiting the primary health care institutions in Malatya city center and districts, directly. All data was evaluated with SPSS 22 software and $p < 0.05$ was accepted as statistically significant.

Results: The mean age of the participants was 36.15 ± 8.57 years; 77.6% of them were women; 49.1% were working in Family Health Center. It was determined 80.1% of family physicians and 84.5% of midwives / nurses have been consulting about breast milk / breastfeeding in daily practice. When the respondents' answers to the statements of knowledge about breast milk/breastfeeding counseling were assessed, there was no significant difference between the answers given by the family physicians and midwives/nurses ($p > 0.05$). The participants gave wrong answers to 40% of the questions about conditions that require practical support such as insufficient breastmilk and the conditions related to the breasts.

Conclusion: In our study we observed that basic subjects were well known by healthcare personnel whereas there is a serious lack of information, especially in daily practice, which should be constantly updated. We think that the training of breastfeeding and breastfeeding counseling should be updated periodically and especially emphasis should be given to new developments and practical information.

Keywords: Breastfeeding; education; health care personnel.

INTRODUCTION

Breast milk is very important in the first 2 years of a baby's life because it has the ideal content to meet the needs of the baby. An examination of the data on the importance of childhood nutrition reveals that about 1.5 million children die due to acute nutritional deficiency per year (1). Although breastfeeding precisely prevents infant mortality, the rate of breastfeeding in Japan for the first 6 months is 3%; this rate is 47.2% in USA and 30% in our country (2-

4). Incorrect knowledge and beliefs about breastfeeding, inadequate access to health services and professionals, and little support from health care providers can result in unfavorable results. In the 2012 World Health Assembly, it has been declared as one of the six global targets to increase the rate of exclusive breastfeeding in the first six months up to at least 50% by year 2025.

In recent years, it is obvious that there is an early cutting trend between the mothers. In the data of the TNSA-2008

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study, only the breastfeeding rate was 42 percent in the first 6 months, while the TNSA-2013 study decreased to 30 percent; therefore, only breastfeeding habit is not widely used as recommended in our country (4). For this reason, health personnel have greater responsibility for giving training to mothers in the prenatal and postnatal period. However, when the literature is examined, it is seen that healthcare personnel lack knowledge about breast milk and breastfeeding (5-7). The situation in our country is not very different (8,9). Öztürk et al. in their study, found that there was a significant positive correlation between mothers' knowledge about breastfeeding and their breastfeeding practice (10). In another study, it was reported that breastfeeding problems experienced by mothers were frequently due to deficiencies in the information they receive from healthcare personnel (11).

Especially considering the fact that in the recent years, only one out of 10 of 4-5 month old babies are fed with breast milk suggests that there may be a lack of knowledge of the health personnel who are expected to provide mothers with evidence based information.

The aim of this study is to evaluate the knowledge level of breast milk and breastfeeding of health professionals working in primary health care institutions in Malatya.

MATERIAL and METHODS

This cross-sectional descriptive study was conducted between August and September 2017. A questionnaire prepared by using the Handbook of Breastfeeding Counseling translated by Child and Adolescent Reproductive Health Branch of the Ministry of Health of Turkey, based on the UNICEF 's Lactation Counseling book published in 2009 (12). The questionnaire included 30 questions, aiming to measure the socio-demographic characteristics and the level of knowledge of the participants. Ethical approval is obtained from the Board of Scientific Research and Publication of İnönü University with the Decision No. 2017/ 18-15. According to the numbers taken from Malatya Public Health Directorate, it was aimed to reach 800 out of 882 health personnel (family physicians and midwife nurses) working in primary health care institutions in Malatya city center and districts. Questionnaires were sent to the e-mail addresses of the 882 healthcare personnel working in primary health care facilities. However, since return to the e-mails was very low, 778 people were contacted by the interviewers by visiting the FHCs and CHCs in Malatya city center and districts, directly.

The questionnaires filled completely by healthcare professional working in a family health center or a community health center were included in the study. Inclusion criterion included working as a doctor, midwife or

nurse in FHCs and CHCs in Malatya city center and districts, to continue working actively at the time of interview, and to accept to participate, verbally. A questionnaire which consisted of 30 questions, was used for collecting data; 9 questions about sociodemographic features; 14 questions were concerning the level of knowledge about breast milk and breastfeeding, 3 questions were about information given during daily practice and 4 questions were about training background on breastfeeding

Statistical Analysis

Descriptive discrete numerical variables were shown as mean \pm standard deviation or median (minimum-maximum). Categorical variables were shown as number of participants and percentages. Categorical variables were evaluated by using Pearson's Chi-Squared. A value of $p < 0.05$ was considered statistically significant. Data were analyzed by using SPSS 22 Package Software for M.S. Windows.

RESULTS

604 (77.6%) of the 778 participants were female. The mean age of the participants was 36.15 ± 8.57 years; 50.9% were working in Community Health Center (CHC); and 63% were midwife nurses. We determined that 72.1% of the participants had children and 69.2% of them used feeding bottles for feeding their children. The distribution of the descriptive characteristics of the participants is shown in Table 1.

We determined that 74.8% of family physicians and 64.9% of midwives / nurses had received training about breast milk / breastfeeding. The percentage of family physicians who stated that it had been more than 5 years since they received training was 40.0% and that of midwives / nurses was 37.9.

It was determined that 62.4% of family physicians, 54.2% of midwives / nurses did not need education about breast milk / breastfeeding and 80.1% of family physicians and 84.5% of midwives / nurses have been consulting about breast milk / breastfeeding in daily practice.

Questions that measure participants' knowledge of breast milk/ breastfeeding counseling are given in Table 2. In addition, when the respondents' answers to the statements of knowledge about breast milk / breastfeeding counseling were assessed, there was no significant difference between the answers given by the family physicians and midwives / nurses ($p > 0.05$).

The distribution of knowledge levels of the participants about breast milk / breastfeeding counseling is shown Table 3. Again, when the answers given by all of the participants were assessed, there was no statistically significant difference between the two groups, ($p > 0.05$).

Table 1. Distribution of descriptive characteristics of participants (n = 778)

Variable	n	%
Age (years) (Mean ± SS= 36.15 ± 8.57)		
Gender		
Female	604	77.6
Male	174	22.4
Working years		
1-5	176	22.6
6-15	277	35.6
16-25	247	31.7
≤26	78	10.0
Working center		
FHC	382	49.1
CHC	396	50.9
Occupation		
Family physician	282	36.2
Nurse – Midwife	496	63.8
Having children		
Yes	561	72.1
No	217	27.9
Use of bottle/ pacifier (n=561)		
Yes	388	69.2
No	173	30.8

FHC: Family Health Center CHC: Community Health Center

Table 2. Participants' distribution of knowledge about breastfeeding / breastfeeding counseling (n = 778)*

Variable	Family physician		Midwife/ Nurse		Total		Test
	n	%	n	%	n	%	
	Babies should be fed exclusively with breast milk during the first 6 months and it should be sustained together with adequate complementary foods up to 2 years						
Correct	244	86.5	420	84.7	664	85.3	$\chi^2=0.491$ p= 0.484
False	38	13.5	76	15.3	114	14.7	
Newborn loses 7-10% of the weight despite breastfeeding in the first week of life							
Correct	239	84.8	408	82.3	647	83.2	$\chi^2=0.798$ p= 0.372
False	43	15.2	88	17.7	131	16.8	
Gaining of a newborn less than 500 grams of weigh per month or making less than 6 pungent urine per day is a reliable insufficient milk diagnosis criteria							
Right	185	65.6	338	68.1	523	67.2	$\chi^2=0.527$ p= 0.468
False	97	34.4	158	31.9	255	32.8	
Baby food supplementation should be done because milk in twin babies will not be sufficient							
Right	92	32.6	196	39.5	288	37.0	$\chi^2=3.663$ p= 0.056
False	190	67.4	300	60.5	490	63.0	
In case of breast occlusion, the breast should be rested for a while							
Right	21	7.4	47	9.5	68	8.7	$\chi^2=0.928$ p= 0.335
False	261	92.6	449	90.5	710	91.3	

Table 3. The distribution of knowledge of the participants about breastfeeding / breastfeeding counseling (n = 778)*

Variable	Family physician		Midwife/ Nurse		Total		Test
	n	%	n	%	n	%	
Because breast milk includes analgesics, there is no need to administer analgesics before vaccination							
Correct	140	449.6	210	42.3	350	45.0	$\chi^2=5.025$
False	72	25.5	161	32.5	233	29.9	p= 0.081
No idea	70	24.8	125	25.2	195	25.1	
Nipple crack is a usual condition during the first baby							
Right	114	40.4	252	50.8	366	47.0	$\chi^2=10.753$
False	148	52.5	200	40.3	348	44.7	p= 0.005
No idea	20	7.1	44	8.9	64	8.3	
Mothers who have flat or reeded nipples cannot breastfeed, they need massage or assistive objects such as a headpiece.							
Correct	194	68.8	340	68.5	534	68.6	$\chi^2=0.143$
False	67	23.8	122	24.6	189	24.3	p= 0.931
No idea	21	7.4	34	6.9	55	7.1	
There are substances and stem cells called HAMLET in the mother's milk that protect the baby from cancer							
Correct	177	62.8	285	57.5	462	59.4	$\chi^2=2.404$
False	11	3.9	18	3.6	29	3.7	p= 0.301
No idea	94	33.3	193	38.9	287	36.9	
The manual milking technique does not provide milk as effective as milking with a pump							
Correct	175	62.1	294	59.3	469	60.3	$\chi^2=0.588$
False	71	25.2	135	27.2	206	26.5	p= 0.745
No idea	36	12.8	67	13.5	103	13.2	
Frozen milk should be given to the baby after it is melted in the direct room temperature							
Correct	175	62.1	325	65.5	500	64.3	$\chi^2=0.948$
False	79	28.0	127	25.6	206	26.5	p= 0.623
No idea	28	9.9	44	8.9	72	9.2	
Nucleotides secreted in the mother's milk day and night are different; providing sleeping order at night and increasing activity during daytime.							
Correct	193	68.4	348	70.2	541	69.5	$\chi^2=2.409$
False	17	6.0	18	3.6	35	4.5	p= 0.300
No idea	72	25.6	130	26.2	202	26.0	
Milk can be stored 3 hours in the room heat, 3 days in the refrigerator shelf, 3 months in the freezer							
Correct	225	79.8	365	73.6	590	75.8	$\chi^2=3.977$
False	27	9.6	67	13.5	94	12.1	p= 0.137
No idea	30	10.6	64	12.9	94	12.1	

DISCUSSION

Breast milk is the main source of food for infants as it contains important nutritional substances. Unfortunately, breast milk is not provided enough for infants in most countries. Boyd et al. reported that 73.5% of healthcare personnel received training about breastfeeding (13). In a study conducted in a health center, in Colorado, it is reported that more than 90% of employees had received breastfeeding counseling, but the number of correct answers given to the questions was at a low level (14). In our country, Gönener et al., in the study, reported that 44% of healthcare personnel received breastfeeding training (15), Artantas et al in their study reported this rate to be 70.2% (8), and our study we found this rate as 70%. We

think, this rates are due to breast milk and breastfeeding trainings for healthcare professionals are organized by the Ministry of Health in Turkey. Walsh and colleagues has shown that during antenatal care, 18.4% of patients has received guidance from family physician about breastfeeding (16).

In a study conducted in Nigeria, 88% of the mothers stated that they were trained on breastfeeding by healthcare personnel (17). Boyd et al. in their study on pediatric nurses, reported that 65% of participants stated that they have been counseling mothers about breastfeeding, but only 39% thought that mothers would benefit from this. In our study, 82% of the participants stated that they have been counseling to mothers in their daily practice.

The fact that breastfeeding rates are still not at the desired levels despite such high rates of counseling provided to mothers, indicates that the counseling service is still not efficient. We believe that larger studies with wider participation should be carried out on this subject.

In a study conducted on nurses and midwives, it has been found that 21% of the participants knew that infants should be breastfed exclusively in the first 6 months, 33% of them affirmed that breastfeeding should be continued until 24 months of age (18). Ramakrishnan et al. reported that 32.7% of mothers who receive care from obstetricians and 44.8% of mothers who receive care from pediatricians had a perception that their care giver recommended exclusive breastfeeding for the first month of life (19). Artantas et al. found that 94.9% of the mothers supported exclusive breastfeeding for the first six month. In our study, 86% of family physicians and 85% of midwives and nurses stated that babies should be breastfed exclusively for the first 6 months and breastfeeding should be continued with supplementary foods until 2 years of age.

In a study, conducted In China, investigating why mothers start early to baby formulas, the healthcare personnel suggested that the reason may be a lack of information about breastfeeding and mothers may think that their breast milk would not be sufficient when they begin working (20). In the study of Amir et al., they listed the reasons as mother may believe that her breast milk is insufficient, may not know the correct breast-feeding technique, and the nursing support may not be adequate (21). In our study, the questions regarding the diagnostic criteria for inadequate milk and those who have twin babies need dietary supplementation were answered incorrectly by 32.6% of family physicians and by 39.5% midwives and nurses. This suggests that there is a lack of information of health personnel about in which conditions breastmilk may be inadequate and dietary supplementation is necessary.

However, in our study only 45% of the participants answered this question correctly. UNICEF and WHO recommend manual milking to be described and encouraged. It is also suggested that the health personnel who provide information on this subject should be well trained (22).

The Ministry of Health of Turkey recommended that breastfeeding should be started within the first half or one hour. In the study of Artantas et al. (8), this question was answered correctly by 99% of the participants; in our study this rate was 98%. A newborn loses 7-10% of its weight within the first week of life. In the study of Artantas et al. (8), this question was answered correctly by 88% of the participants; in our study this rate was 84%. These high rates of correct answers suggest that there is no problem in the basic information about breastfeeding counseling in our country. However, 50% of the questions regarding conditions that require practical support such as insufficient breastmilk and the conditions related to the breasts were answered incorrectly (8). Similarly, it has been reported that most of the participants don't have a

sufficient level of knowledge regarding breast problems (23). In study, the questions regarding inadequate milk criterion or problems related to breast problems and treatment methods were answered correctly as low as 50%. This suggests that we are not able to provide enough information about situations that are often encountered by parents who do not have experience in the first baby. In this respect, it is necessary to update the information of all health personnel and to give importance to these issues.

In a study conducted in the United States, it was found that health personnel needed training in breastfeeding (24). Artantas et al. found that the proportion of those who think that healthcare professionals have low levels of knowledge and they are in need of training is 41% (8). Similarly, in our study, we found that there is a lack of information of health workers, especially in practical matters. However, 38% of family physicians and 45% of midwife nurses accepted that they needed training. These results can be interpreted as the fact that the personnel who need training do not even notice that there is a lack of information. The strength of our study is that we reach %90 of the health personnel who are at the point of first contact for breast milk and breastfeeding counseling.

CONCLUSION

In recent years, it has been emphasized that breast milk is very important for both baby and maternal health. In our study we observed that basic subjects were well known by healthcare personnel whereas there is a serious lack of information, especially in daily practice, which should be constantly updated.

Therefore, it should be ensured that health professionals who follow up and provide counseling to pregnant women in primary care supplied with in-service trainings or continuous medical education and complete their inadequacies in providing practical help to mothers. We think that it is appropriate to repeat these trainings at regular intervals, as new information about breastfeeding is introduced continuously.

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