

Assessment of Knowledge of Healthcare Professionals Before And After Breastfeeding Counseling Training

Sağlık Çalışanlarının Anne Sütü ve Emzirme Danışmanlığı Eğitiminin Öncesi ve Sonrası Durumlarının Değerlendirilmesi

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ABSTRACT

Aim: The aim of this study is to assess the effectiveness of the breastfeeding counseling training by comparing the pretest and posttest results.

Methods: A total of 332 results of a 25-item pre-and post-test, used in standard trainings were assessed. Quantitative parameters were expressed as mean, standard deviation, median, minimum and maximum values; categorical variables were expressed as the number of cases (percentage). SPSS 17.0 program was used and $p < 0.05$ is accepted as statistically significant.

Results: The median age of participants was 34 years; the median serving time was 13 years. Of the participants, 40.1% (n=70) were physicians, 29.2% (n=133) nurses, and 21.1% (n=97) midwives. The question "The ratio of breastfeeding in the first six months in our country is 28.6%" was answered correctly by 47.6% in pre-test, and 98.2% in post-test. This difference was statistically significant ($p=0.041$). In the pre-test, the question "Listening and learning skills should be used to help mothers with inadequate milk" and in the post-test the question "which of the following are self-reliance support skills?" were evaluated in the same category, and there was significant difference in the comparative statistics of the questions ($p=0.043$).

Conclusion: The questions about self-esteem support and listening learning skills were the least accurately answered questions in the pre-test. After the training we observed a significant development. We suggest that the role play method as well as interactive training which is an indispensable part of adult education will further enhance the effectiveness of training.

Keywords: breastfeeding, education, health personnel

ÖZET

Amaç: Çalışmamızda, sağlık personelinin Anne Sütü ve Emzirme Danışmanlığı eğitiminin öncesiyle sonrası karşılaştırılarak verilen eğitimin etkinliği ölçülmüştür.

Yöntemler: Çalışmamızda 332 kişiye uygulanan ve standart eğitimlerde kullanılan 25'er soruluk ön-son test sonuçları değerlendirildi. Sayısal parametrelerde ortalama, standart sapma, ortanca, minimum ve maksimum değerler; kategorik değişkenlerde olgu sayısı (yüzde) kullanıldı. İstatistik anlamlılık sınırı $p < 0,05$ olarak alındı ve istatistiksel analiz için SPSS 17.0 programı kullanıldı.

Bulgular: Çalışmaya dahil edilen 332 olgunun yaş ortancası 34 yıl, çalışma süresi ortancası 13 yıldır. Olguların %40,1'i (n=133) hemşire, %29,2'si (n=97) ebe, %21,1'i (n=70) doktordur. Ön testte "Ülkemizde ilk 6 ay anne sütü verilme oranı %28,6'dır" sorusuna eğitimden önce doğru cevap verilme oranı %47,6 iken, eğitimden sonra %98,2'ye çıkmıştır. Bu fark istatistiksel olarak anlamlıdır ($p=0.041$). Ön testte "Yetersiz sütü olan anneye yardımda mutlaka dinleme öğrenme becerileri kullanılmalıdır" sorusuyla, aynı kategoride değerlendirilen son testte "Aşağıdakilerden hangisi özgüven destek becerileridir" sorusunun karşılaştırmalı istatistikğinde anlamlı fark bulunmuştur ($p=0,043$).

Sonuç: Çalışmamızda özgüven destekle, dinleme öğrenme becerilerine yönelik hazırlanmış sorular ön testte en az doğru cevap verilen sorular olmuştur. İnteraktif ve oyunlaştırma yöntemleri kullanılarak verilen eğitimden sonra yapılan son testte kendilerini geliştirdikleri gözlenmiştir. Erişkin eğitiminin vazgeçilmez parçası olan interaktif eğitimin yanında, oyunlaştırmaların kullanılmasının, eğitimin etkinliğini daha da artıracak kanaatindeyiz.

Anahtar kelimeler: emzirme, eğitim, sağlık personeli

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Introduction

Breast milk is the only physiological nutrient that has all a newborn may need in sufficient amount and quality (1). World Health Organization (WHO), United Nations Children's Fund (UNICEF) and the Ministry of Health suggest that babies should be fed exclusively with breast milk in the first 6 months and breastfeeding should be continued along with supplementary foods until after 2 years of age (2). Breastfed babies are immunized against diseases including pneumonia, middle ear infections, diarrhea, obesity, type 2 diabetes, meningitis, measles etc (3). Breastfeeding also protects the mother from postpartum hemorrhage, anemia, osteoporosis, breast cancer and ovary cancer (4).

"Baby-Friendly Health Facilities" concept was introduced in the 2000s and especially hospitals were assessed in this context. After 2010 "Baby-Friendly Family Health Centers" have been included in this program. The aim of this program was to provide breast milk to each newborn initially. At this stage healthcare personnel has to know the breastfeeding counseling and provide breastfeeding counseling to mothers, starting from the 32nd week of pregnancy. It is known that the duration of breastfeeding is significantly increased in the mothers supported by the healthcare personnel (5).

The aim of this study is to assess the effectiveness of breastfeeding by trained breastfeeding mothers and to compare the pre- and post-training knowledge of the healthcare staff in Ankara about breastfeeding.

Methods

"Breast milk and breastfeeding counseling" training is given by Ankara Public Health Directorate to randomly chosen healthcare staff in primary, secondary and tertiary healthcare centers in routine periodic intervals. Healthcare staff included in this study is randomly chosen among these personnel. These trainings are conducted in two stages including 15 hours of lectures and 3 hours of practical training. Training in practical applications is performed in the largest gynecology and obstetrics hospital in the province. Practical applications comprise the skills part of the training and provides permanency to the

training. Lecture subjects are given in Table 1.

Table 1. Lecture Subjects in Breast Milk and Breastfeeding Counseling Training

1.	Successful breastfeeding in 10 steps
2.	How is breastfeeding done
3.	Listening and learning skills
4.	Taking breastfeeding history
5.	Assessment of breastfeeding
6.	Resumption of breastfeeding
7.	Feeding the sick baby
8.	Conditions associated with breast
9.	Reasons of breast refusal
10.	Self-reliance and support skills
11.	Breast milking techniques
12.	How is supplementary feeding done
13.	Mother and Child Health Data in Turkey
14.	Inadequate Milk Causes and Treatment Techniques
15.	The causes of infant crying

The participants' improvement of level of knowledge is assessed through comparing results of the pre-test before the training and posttest after the training. The trainings are conducted by specially trained staff in this subject. In this study, the data of 448 randomly chosen participants who participated in the training organized by the Public Health Directorate of Ankara were collected. After missing and invalid data were excluded a total of 332 test results were included in the study. Numerical parameters were presented as average, standard deviation, median, minimum and maximum values, and categorical variables as percentages. A value of $p < 0.05$ was accepted statistically significant. Statistical analyses were performed by using SPSS 17.0 program. Fischer and Chi-square tests are used in comparative statistics.

Results

In the study, 332 healthcare professionals were included and the median age was 34 years (min: 17; max: 73). The participants' median serving time was 13 years (min: 1 month, max: 43 years). Seventy (21.1%) of the participants were doctors, 133 (40.1%) participants were nurses, and 97 (29.2%) were midwives. The highest participation (26.2%) was from Etlik Zubeyde Hanım Gynecology and

Obstetrics Training and Research Hospital, and the lowest participation (10.2%) was from Etimesgut Military Hospital.

In the pretest the question "breast milk contains prebiotic substances and antioxidant elements" was the most correctly answered question, with a ratio of 97.3%. The least correctly answered question was "The breastfeeding hormone prolactin forms before breastfeeding", with a ratio 23.5%.

In the final test the most number of correct answers was given to the question showing the correct and wrong positions of breastfeeding, with a ratio of 99.4%, whereas least number of correct answers was given to the questions "What is the most important reason for giving the baby colostrum?" and "which of the following increases breastfeeding success in sick infants?", with a ratio of 81.6%.

In the pre-test the question "In our country the continuation rate of breastfeeding in the first 6 months is 28.6%" is answered correctly by 47.6%, and this ratio increased to 99.7% in the posttest. This difference before and after the training was statistically significant ($p=0.041$).

In the pre-test, the question "Listening and learning skills should be used to help mothers with inadequate milk" and in the post test the question "which of the following are self-reliance support skills?" were evaluated in the same category, and there was significant difference in the comparative statistics of the questions ($p=0.043$).

Discussion

World Health Organization (WHO), United Nations Children's Fund (UNICEF) and the Ministry of Health suggest that babies should be fed exclusively with breast milk in the first 6 months and breastfeeding should be continued along with supplementary foods until after 2 years of age (2). The Public Health Institute of Turkey reported that the ratio of the babies being fed exclusively with breast milk in the first 6 months is 30%, in the 2014-2017 strategic plan (6). In the Turkish Population Standards Survey 2008 (TDHS-2008) the ratio of the babies exclusively breastfed for the first 6 months was 41.6% (7).

Baydar Artantaş et al. (8) found in their study that

the question "feed your baby exclusively by breastfeeding for the first 6 months, and continue breastfeeding with complementary foods up to 2 years, for healthy generations" was answered correctly by the most of the healthcare professionals. Our results were similar in that the true/false question "breastfeeding is required for babies for the first 6 months, after 6 months it is not required" was given the correct answer "false" by 97% of the participants. In the same study the question "hand milking technique is not as effective as milking with a pump" was answered correctly by 38.8% of the participants. In our study, the question "which method of milking should mothers know" is given the correct answer "hand milking" by 99.4% of the participants. Healthcare professionals are aware that mothers should know the milking process. However it should be emphasized in the trainings that hand milking method is as effective as milking with pump. For an effective breastfeeding, mothers should not experience problems related with breast after childbirth (9). In the study of Baydar Artantaş et al. (8) the true/false question "Cracks of nipple is a usual case, for the first baby" was answered correctly by 37.8% of the participants by saying "false". In our study the same question was answered correctly by only 25.3% of the participants in the pre-test. It was observed that the ratio of correct answers increased in the post-test. In the literature, the frequency of correct breastfeeding is expressed as whenever the baby gives signs or at least 2 hour intervals (10). The correct position for breastfeeding is defined as the mother holds the baby with one hand and supports the breast with the other hand with four fingers below and one finger on the top (11). In our study, the question related to the correct position of breastfeeding is answered correctly by 95.2% of the participants and this ratio increased to 99.7% after the training.

Ingram (12) conducted an interactive training in her study and found statistically significant increase between the pretest and post-test, depending on those results she suggested that interactive training is more effective. We also used interactive training in training subjects in our study, but there were no statistically significant differences between pre and post test

results. Hillenbrand and Larsen (13) suggested in their study that role-play training is more successful. In our study we also applied role play method in the self-confidence support and listening and learning skills lessons and we found a statistically significant increase in the correct answers, between pre and post tests, which supported the same theory.

Gönener et al. (14) found that 56% of healthcare professionals do not attend to post-graduate courses, symposiums and seminars related to infant and child health. In our study the low ratio of correct answers given to questions related to self- confidence skills suggests that the participants did not participate in trainings on these issues in school or post graduate period.

In the literature there are few studies depending on pretest and post-test, similar to our study. However, there are a lot of researches investigating the trainings given to mothers and their opportunity to acquire information from the healthcare personnel.

Nakar S. et al. (15) found in their study, conducted with 478 physicians (123 family physicians, 134 obstetrician, and 221 pediatricians), that less than 20% of the physicians have been providing breast milk and breastfeeding counseling and the majority of the physicians had a lack of information. DiGirolamo et al. (16) reported in their study, that 39% of physicians, and 58% of assistive healthcare personnel had given breast milk and breastfeeding counseling (16). In a study conducted in Australia in 2008 it is reported that % 43.8 of 19672 mothers received antenatal care at healthcare centers and % 32.6 of them were given breast milk and breastfeeding counseling by obstetricians and 18.4% by family physicians (17). In a study conducted with 5003 mothers it is reported that 3165 (62.2%) mothers were informed by healthcare professionals, 652 (13.8%) by parents, 544 (11.5%) by media and 351 (7.5%) by friends (18). Kaya and Piriñçi (19) reported that 63.6% of the healthcare personals provide consultancy to mothers before giving birth. In the same study it is reported that 33.5% of the doctors, 30.1% of midwives and nurses had provided consultancy to the mothers. In the study of Eker and Yurdakul (20) it is found that 68.5% of mothers got information about breastfeeding in the

postpartum period. Review of the studies show that approximately half of the mothers got information from a healthcare personnel. We suggest that in order to increase this rate, the number of trainings given to healthcare personnel should be increased.

Onbaşı et al. (21) divided mothers into two groups in their study, in the study group 67.8% of the mothers fed their babies exclusively with breast milk and in the control group 28% of the mothers fed their babies exclusively with breast milk during the first six months. They attributed this difference between the two groups to the training of breastfeeding the study group received. Kavuncuoğlu et al. (22) found that 90.4% of the 4-6 months old babies of the mothers whom they provided breastfeeding training in the antenatal period were fed exclusively with breast milk. This finding shows that the mothers who received training, breastfeed their babies more.

A limitation of our study is that it is not known what are the resources and who prepared the questions included in the tests conducted since 2001.

Conclusion

In order to provide mothers with accurate and comprehensive training, healthcare personnel should be trained at regular intervals and should be supported with books. In our study the questions about self-esteem support and listening learning skills were the least accurately answered questions in the pre-test. After the training conducted by using interactive training and role play methods we observed that the number of correct answers was increased. We suggest that role play method as well as interactive training which is an indispensable part of adult education will further enhance the effectiveness of training.

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