Tele-Nursing for Informing Breast Cancer Patients in the Post-Operative Period

Meme Kanserli Hastalarda Ameliyat Sonrası Bilgi Gereksinimi ve Telefon Hemşireliği ile Karşılanması

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ABSTRACT

This study was conducted with the aim of determining the problems, disease perception of the patients and required information by breast cancer patients. A total of 30 patients who had undergone breast operation were included in the study. The patients did not receive adjuvant chemotherapy, radiotherapy and hormone therapy. All patients were verbally informed by the physicians and the nurses in the post-operative period, and phone calls were made on the post-operative day 5-7 and after their education needs had been determined, and they were informed about these issues. Disease perception was evaluated through face-to-face interviews at the clinic and phone calls at home. The form including the data about the socio-demographic characteristics of the patients, the disease perception and the information they needed were adapted by the researchers. The data were given as numbers and percentages.The mean age of the patients was 54.36 ±7.02 years. Of the patients, 83.3% were elementary school graduates, 86.7% were married, and 90% of the patients were in stage III. Modified radical mastectomy was performed in 83.3% of the patients. Axillary lymph node dissection was performed in 93.3% . The rate of the patients who had requested information about wound healing, infection control, and lymph-edema was 100%. The rate of the patients who were sent to control with suspicion of infection was 10%. The patients measured their arm circumference after phone calls in the post-operative period; there was 1 cm difference in 10% of the patients. Tele- consultancy in early post-operative period of breast cancer provides high patient satisfaction. Therefore, providing a standard education and arranging certification programs for tele-nursing for breast-care nurses are of great importance.

Keywords: Breast cancer, Telephone, Consultancy, Nursing.

ÖZET

Bu araştırma meme kanseri olan hastaların telefon yolu ile gereksinim duydukları sorunları belirlemek ve ihtiyaç duydukları bilgilendirmeleri belirlemek amacıyla yapıldı. Çalışmaya meme operasyonu uygulanan 30 hasta dahil edildi. Hastalar adjuvan kemoterapi, radyoterapi ve hormono terapi almadı. Tüm hastalar postoperatif dönemde doktor ve hemşireler tarafından sözel olarak bilgilendirildi. Ameliyattan 5-7 gün sonra telefonla hastalar arandı ve eğitim gereksinimleri belirlenerek gerekli bilgiler tekrar verildi. Hastaların sosyo-demografik özellikleri, hastalık algısı ve gereksinim duydukları bilgilere yönelik form araştırmacılar tarafından uyarlandı. Veriler sayı, yüzde olarak değerlendirildi. Hastaların yaş ortalaması 54,36+7,02'dir. Hastalar %83,3 ilkokul mezunu, % 86,7 si evliydi. Hastaların %90'nı evre III idi. Hastaların %83,3'üne modifiye radikal mastektomi uygulandı. Hastaların % 93,3 'üne aksiller lenf nodu diseksiyonu uygulandı. Ameliyat sonrası telefon görüşmesi yapılan hastaların bilgi gereksinimlerinin yara yeri iyileşmesi, enfeksiyon kontrolü, lenfödem konusunda bilgi isteği olan hasta %100 idi. Enfeksiyon şüphesiyle tekrar kontrole yollanan hasta % 10 du. Ameliyat sonrası hastalar telefonla görüşmesi ile kol ölçümlerini kendileri yaptı ve 1 cm boyutunda ölçüm farkı olan hasta %10' du. Hastaların adjuvan tedavi zamanları, saç dökülmesi, bulantı, kusma ve yorgunluğa yönelik soruları vardı. Meme kanseri hastalarına ameliyat sonrası erken dönemde telefon ile danışmalık hizmeti verilmesi yüksek hasta memnuniyetini sağlamaktadır.

Anahtar Kelimeler: Meme Kanseri, Telefon, Danışmanlık Hemşirelik.

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INTRODUCTION AND OBJECTIVE

Breast cancer continues to be among the diseases that increase the mortality and morbidity. Breast cancer is the most common cancer type among women according to the American Cancer Association. Lifelong breast cancer development is estimated to occur in one of every 8 women (12%) and 231.840 new breast cancer cases are estimated to develop and mortality is estimated as 40.290 according to the 2015 data.[1] Breast cancer is the most common cancer type among women in Turkey with a prevalence of 40,7/100.000.[2] Breast cancer patients need information in order to improve their quality of life during the operation, radiotherapy, chemotherapy and target therapy.[3]

Various findings may be observed depending on the disease itself or its treatment. Psychological problems such as anxiety about the future, changing of the body image due to loss of the breast, changes in sexual life and depression may develop beside physiologic problems such as post-operative infection, lymph-edema, pain, etc.[3-9]

Chemotherapy-related nausea, vomiting, fatigue, susceptibility to infections and hair loss may also be seen in breast cancer patients. The most common side effects of radiotherapy include fatigue, skin changes and loss of appetite. Radiotherapy and chemotherapy-related side effects negatively affect the psychosocial status and quality of life of the patients.[10] In a study, written self-care guides, phone calls and supportive group meetings were applied to breast cancer patients in order to enable them to overcome the side effects of the treatments. As a result of this study, the patients were determined to use self-care applications in order to overcome intra-oral problems like mucositis, nausea, vomiting and to prevent infections. The patients were determined to experience fatigue, skin reactions and dry mouth during chemotherapy and self-care applications were seen to relieve the patients.[11] Therefore, information and the skill needs of the patients and families may be provided through various ways.[12] Tele-consultation is one of these ways. Phone calls may be used for maintenance of home care following discharge from the hospital. Tele-monitoring is one of the easy, accessible, inexpensive methods that can be used for continuous patient care.[13] Beside the advantages, tele-monitoring has some disadvantages. The most important disadvantage is not being face-to-face with the patient and not clearly understanding the patient needs.[14]

In some countries and health institutions, absence of a system enabling the patients to access health personnel, to provide consultation following discharge from the hospital, to provide support for home care and monitoring leads to some challenges. Hence, the patients are seen to present to the hospital again in order to see the physician or the nurse to express their problems. The tele-monitoring system facilitates patient information through clinical guides, helps patients to obtain information without going to hospital and problem solving.[13]

In our study, we aimed to determine the problems of the patients, and the influence of tele-information on solving these problems in the early post-operative period of breast cancer patients.

MATERIAL AND METHOD

A total of 30 patients who had undergone a breast operation between January 2015 and January 2016, for whom adjuvant therapy had not been begun yet, who were in pathological grade II and III, were included in the study. All patients had been informed by the physicians and the nurses in the post-operative period. This information included the issues about infection control, lymph-edema control, pain control and arm movements after axillary dissection that the patients would need to know in the post-operative period. Visual materials were not used to facilitate learning.

Phone calls were made on post-operative days 5-7. The education needs were determined through the questions and required knowledge was provided on phone calls. The disease perception of the patients was evaluated through face-to-face interviews at the clinic in the pre-operative period and on phone calls at home. Disease perception is a factor that determines the interpretation, assessments of the patient about the disease, emotional and behavioral reactions, coping style and quality of life. Disease perception was also evaluated in this study, as it is important in the management of signs and symptoms.[15,16]

The form including data about the socio-demographic characteristics of the patients, disease perception and the necessary information was adapted by the researchers under the light of the literature data.[17] The patient information form included knowledge about the post-operative infection control, pain control, lymph-edema control, arm elevation, arm movements, control days and arm preservation. The questions about chemotherapy, radiotherapy and hormone therapy were also evaluated. The nurse who had responded to all questions on phone calls and informed the patients was an experienced nurse who had received professional education about this issue. Phone calls took 30 min to one hour. In this research which is not invasive approval from the ethical committee was not requested since permission was obtained from the institution and verbal consent was obtained from the patients. No statistical comparison was performed in this study. The data were given as numbers and percentages (mean values were given as mean ± standard deviation).

RESULTS AND DISCUSSION

The mean age of the patients was 54.36 ±7.02 (min 41, max 69). 86.66% of the patients were married and not working; however, all women had social insurance. Of the patients, 86.66 % (n=26) were graduates of primary school, and 90% (n=27) were in menopause. There was a family history of breast cancer in 23.33% (n=7) of the patients. 90% of the patients were in stage III. Modified radical mastectomy had been performed in 83.33% (n=25) of the patients. Axillary lymph node dissection had been performed in 93.33% (n=28). The socio-demographic characteristics of the patients have been summarized in Table 1.

Pain scores according to the Visual Analogue Scale (VAS) were between 3-4 on post-operative days 5-7. The patients reported that pain occurred mostly during arm joint movements.

Table 1. Demographic characteristics of the breast cancer patients

Demographic characteristics	n	%
Marital Status		
Single	4	13.3
Maried	26	86.7
Education Status		
Primary School	26	86.8
High School	2	6.6
University	2	6.6
Work Status		
No working	26	86,7
Working	4	13.3
Menopause Status		
Yes	27	90.0
No	3	10.0
History of Breast Cancer in Family		
Yes	7	23.3
No	23	76.7
Stage		
Stage II	3	10.0
Stage III	27	90.0
Type of Surgery		
Mastectomy	25	83.3
Breast Conserving Surgery	5	16.7
Axillary Lymph Node Dissection		
Yes	28	93.3
No	2	6.6
Perception of Disease		
Very bad	6	20.0
Bad	16	53.3
Good	8	26.7
Very Good	0	0.0

Therefore, all patients were determined to be unable to begin arm exercises; they could only change their clothes, and had difficultly combing their hair. It was learnt that they could not start to climb walls or turn ropes yet. The patients were informed about these issues.

The methods used by the patients for coping with pain included anti-inflammatory drug use, and also non-pharmacological methods such as listening to music and watching TV (Table 2).

Leakage from wound site was determined in 10% (n=3) of the patients. They were referred to the physician with the suspicion of wound site infection. All of these patients were enrolled in a wound dressing program with the diagnosis of wound site infection and antibiotic treatment was begun. Recommendations regarding infection control were given and the patients were informed.

Stage I- low lymphedema was determined in 83.33% (n=25) of the patients. Information about lymphedema was given through phone calls to all patients with or without lymphedema. Upper extremity elevation, periodical measurement of arm circumference, arm-shoulder exercises, proper nutrition, avoiding lifting weights, and preserving skin integrity were recommended on phone calls.

Low fatigue was determined in 86.66% (n=26) of the patients (score 1-3), 20% (n=6) had loss of appetite. Sleep disorder was not determined in any of the patients. The patients were informed about nutrition, sleep hygiene and activities. Constipation was seen in 10% (n=3); however these patients had had constipation previously. These patients were informed about nutrition, toilet training, fluid intake and activities. Post-operative complications such as deep venous thrombosis and other systemic complications were not observed in any of the patients. The patients who had received tele-consultancy were determined to have insufficient knowledge about post-operative pain, lymph-edema, arm-shoulder exercises, infection control, fatigue, loss of appetite and constipation control. It was also determined that they required more information about adjuvant therapies like chemotherapy and radiotherapy. Hair loss, infection control, nutrition type, and nausea-vomiting control during chemotherapy were the issues on which the patients needed information most. They also had questions about alternative treatments, diets that should be followed up, how radiotherapy, chemotherapy, hormone therapy should be performed, and how long they would take. The patients particularly asked questions about protection against micro-organisms, hygiene, being in public places, visitors and food cleaning. The other questions were about bra selection, hair loss, haircuts and use of the traditional scarf. The

patients had worries about nausea, vomiting and they had questions about preventing them. The patients were seen to have worries about chemotherapy most. There were questions about which foods contained estrogen, how they would eat at certain periods, organic and natural food and alternative treatments.

Table 2. Information that the patients need after the operation

Post-operative days 5-7	n	%
Pain visual analog scale points		
1	5	16.7
2	3	10.0
3	9	30.0
4	9	30.0
5	4	13.3
6-10	0	0.0
Using Anti-inflammation Drugs	30	100.0
Non-drug aplication for pain Listening music and watching Television	30	100.0
Breast Infection		
Yes	3	10.0
No	27	90.0
Fever (37.3-37.5 C)		
Yes	3	10.0
No	27	90.0
Refer to doctor with infection's suspicion		
Yes	3	10.0
No	27	90.0
Limitation of Movement after Axillary Lymph Node Dissection		
Yes	28	93.3
Lympedema		
None (Axillary Lymph Node Dissection)	2	6.7
Stage I- Low lyphedema	25	83.3
Stage II- Mild lymphedema	3	10.0
Stage III Severe lymphedema	0	0.0
Tired		
1-3 points: Low tired	26	86.7
4-6 points: Moderate tired	4	13.3
7-10 points: Severe tired	0	0.0
Loss of Appetite		
Yes	6	20.0
No	24	80.0
Slepness		
No	30	100.0
Constipation		
Yes	3	10.0
No	27	90.0
Respiratory , Urinary Sytems Infection		
Yes	3	10.0
No	27	90.0

The Canadian Cancer Society (2015) emphasizes that patients should be informed about these issues through web sites.[17] Runowicz and Leach et al.[8] stated that symptom control should be provided, and information should be given about treatments, care and consultation.

Traditional applications and beliefs of the patients also come in the foreground in patient care. Some patients asked questions about whether fasting would affect their treatment. All patients were seen to prefer wearing scarfs instead of a wig when they lost their hair. This was considered to be associated with regional and religious practice. It was determined that the patients tried to cope with the disease through praying. Banning et al.[18] also reported that Muslim women used religious practice for coping with the disease, similar to our study.

In our study, it was stated that these data would be repeated during all therapies, and that chemotherapy and radiotherapy regimens would be planned by a team. The patients were given a phone number and made sure that they could call whenever they felt the need to call. In their study conducted in Sweden, Haggmark et al.[19] reported that cancer patients should be provided repeated information beside standard information. Repeated information and tele-consultancy improve patient satisfaction through enabling them to manage the physiological and psycho-social problems. The results of the study of Karayurt et al.[10] are similar to ours.

In the study, presence of a nurse who provides tele-consultancy in the pre- and post-operative periods, during chemotherapy, radiotherapy and hormone-therapy periods, was found to be important for providing information to the patients. In Turkey, breast-care nurses who can provide consultancy during the whole treatment period are educated. In addition, breast-care nurse certification programs have begun to be carried out in recent years. Therefore, patients have begun to receive education and consultancy from different nurses in the surgery clinic, and in radiotherapy and

chemotherapy units. Trainings are carried out in limited time intervals due to the large number of patients in the clinics where these nurses work. Hence, sufficient specific knowledge cannot be provided. Besides, sufficient time cannot be spent with the patients. This study has revealed that specific tele-nursing should be given to groups. The questions asked in the post-operative period were found to be about which most knowledge was sought. Although this study has revealed high patient satisfaction through information and consultancy, trainings given through visual materials during the hospitalization should not be neglected. Information given at the clinic and through phone calls would decrease the knowledge need of the patients and patients would trust the nurse to a higher extent. As stated by Karayurt et al.[20], meeting the knowledge and support requirements of the patients by the same nurse during the whole treatment period and maintenance of this service through tele-nursing are considered to improve patient satisfaction and the trust of the patients in the institution and services.

We found that determining the effects of traditional nutrition style, wearing style, alternative therapies, activity levels, visits by the relatives, religious activities like fasting on patients comfort, psychological and physiological status were also within the responsibilities of the nurse. Tele-nursing at every stage of the treatment of breast cancer patients, management of symptoms related to the treatment and complications were seen to be required in the studies of Lee et al.[12], Larson-Dahn et al.[13], and in the Nova Scotia Nurses 2008 guideline.[14] The physiological and psychological needs of the patients should be determined and support should be provided to the patients and the families.

Tele-consultation enables the patients to reach correct knowledge on time. This may help prevent morbidities through determining the patients' needs and performing the necessary interventions. We also consider that education criteria and certificate programs should be developed for educating breast-care nurses, and the roles and responsibilities of these nurses should be increased, and patients should receive nursing services through face-to-face interviews, group educations and tele-nursing.

Our study has some limitations. The relatively small number of the patients has restricted the inter-group comparisons. The effectiveness of the analysis may be improved through contacting the patients again in different time intervals. Therefore, prospective studies conducted with larger series are required.

CONCLUSION AND SUGGESTIONS

Tele- consultancy in the early post-operative period of breast cancer provides high patient satisfaction. Hence, providing a standard education and arranging certification programs for tele-nursing for breast-care nurses are of great importance. Further studies are required on different activity fields that may be helpful for the nurses through tele-nursing.

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