



Nurses' Practice of Preoperative Patient Education in Cyprus

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ABSTRACT

Objective: This study was conducted to determine the status of nurses' practice of preoperative patient education in surgical clinics. **Materials and methods:** A descriptive, cross-sectional study was conducted which consisted of 80 nurses employed in surgical clinics of a state hospital and a university hospital in Nicosia. Data were collected with a questionnaire prepared based on a literature review and was analyzed using descriptive statistics. **Results:** The study was conducted on the nurses, out of whom 70% had a bachelor's degree, 88.8% provided patients with teaching before the operation, 62.5% offered patients with this education at the time of hospitalization for surgery and 88.7% of those who offered education preferred verbal explanation and 67.6% used print training materials. It was determined that 72.5% included the patient's family and relatives to the education process, 71.2% considered cultural characteristics and habits while offering education to the patient and patient's family, 62.5% were able to determine the suitable time and duration while offering education to the patient, 72.5% paid attention to not use medical terms in education and 81.2% allowed the patient and patient's family to ask questions. About 82.5% of the nurses provided patients with information about tests and examinations, 88.8% intestines and skin preparation, 83.8% postoperative pain and management, 73.8% deep breathing, cough extremity and rotation exercises. **Conclusion:** It was determined that the nurses mostly provided teaching before the operation but there were some deficiencies in the realization of education. It is recommended to develop education materials/brochures and suitable tools and equipment for surgical nurses to offer comprehensive and effective preoperative education.

Keywords: Preoperative education, Preoperative teaching, Nursing practices, Surgery patients

INTRODUCTION

Patient education within the scope of the training role of professional nurses intends to ensure healthy/sick individuals acquire healthy living, knowledge, attitudes, behaviors, and habits. Having focused on disease pathophysiology and treatment recently, today patients education has undertaken more responsibilities for protection from diseases and development of well-being in the patients, and there family care for the disease and focused on their participation in care management [1,2].

Increased number of information sources, treatment methods adapting more complicated structures and shortened hospitalization time are among the developments that make it more necessary to offer patient education. These developments, undoubtedly, require nurses to have training skills and give prominence to patient education. In patient education, the purpose is to identify and meet the health training needs of the patient's family and relatives. The surgical nurses should acknowledge that the patient needs information about topics related to the processes before, during and after the operation and include preoperative education into patient care [3,4].

For patient training which has become an integral part of the health system in developed countries is increasingly developing further, the purpose is to empower the individual and ensure he/she acquires self-management. Patient care is only effective when combined with the patient training process [5,6].

Preoperative education is an essential part of preoperative patient care, which is one of the important indicators of the quality of care for the surgical patient and one of the most important nursing interventions. Patient education is

a dynamic process which ensures the individual adopts behavioral changes to eliminate health problems, improve well-being and support healthy living. Patient education is the teaching and learning process between health care professionals and patients. Fulfillment of education requirements of patients is an indicator of qualified patient care result [1,6,7].

Main topics about which patients and their relatives should be informed about before operation can be listed as preoperative diagnosis, preparation, treatment, duration of operation, materials, frequency of visits, allowable time to spend with the patient, the location where people who will render postoperative care to the patient can wait during the operation, method of communication and information sharing with the operation hall, tubes and drains to be attached to the patient after operation, exercises and restrictions to be complied with by the patient [2,8].

Patient education is conducted to ensure patients and their families acquire certain information, attitudes, values, behaviors, and skills. This education ensures the transmission of information and thoughts and the acquisition of skills [6,8]. The purpose of patient training is to help the patient cope with the disease and comply with the treatment, motivate them to participate in care, improve their decision making skills and healthy behaviors and ensure they reach the maximum level of health. Patient training, by facilitating accord of the patient with the disease, ensures faster recovery, reduced morbidity and mortality, improved life quality and increased patient autonomy. Accordingly, it lowers cost and improves patient satisfaction [9,10].

Patient education helps the individual understand the diagnosis and treatment, actively participate in own care, get rid of the sense of incapability with respect to the disease, regain their health and maintain home care [3,11].

Failing to provide sufficient preoperative information leads to anxiety, fear of pain, fear of uncertainty about the future, depression, anger, and inability to fulfill personal functions after operation in the patient. As a result of this, the risk of complication increases and the duration of hospital stay extends [12,13].

The patient to go under an operation and patient's relatives have fear and concerns about anesthesia, surgical intervention and practices to be rendered. It has been determined that the patient and patient's family need to be informed to cope with these challenges. The surgical nurse who has deep and comprehensive knowledge on a level to coordinate patient care should inform the patient and patient's family about practices to be rendered and possible conditions which may occur before, during and after operation [2,6].

Studies show patients who have been prepared and trained well before operation need fewer analgesics, antiemetic and sedatives recover faster after the operation and with a shortened hospital stay, and are discharged sooner [7,14-16]. It is stated in the literature that patient education is essential, nurses have important roles in training and comprehensive studies are required about patient education [9,10,17].

Review of the studies on the topic led to the conclusion that nurses failed to offer patient education effectively and the education offered was insufficient. The reasons for the failure of nurses in offering patient education effectively were listed as patient overcrowding, time restraints, insufficient number of nurses, work overload, stressful and intensive working conditions of nurses, job dissatisfaction, not sufficiently embracing nursing roles, engaging in other tasks than nursing roles, lack of training tools and equipment and facility infrastructure [5,18-22]. Patient education within the scope of the training role of professional nurses intends to ensure healthy/sick individuals acquire behaviors and habits. It demonstrates patients who have been prepared well and trained sufficiently before operation recover and are discharged faster with reduced time of stay in the hospital after the operation. This study was conducted to determine the status of nurses' practice of preoperative patient education in surgical clinics.

PATIENTS AND METHODS

Design

This is a descriptive, cross-sectional study to determine the status of nurses' practice of preoperative patient education in surgical clinics.

Sample

The study was conducted in surgical clinics of a state hospital and a university hospital in the Turkish Republic of Northern Cyprus between November 2017 and January 2018. The study population comprised of 155 nurses

employed in surgical clinics of a state hospital and a university hospital. The study sample comprised of 80 nurses out of 155, as 20 nurses were on leave and 55 nurses refused to fill out the questionnaire, and 80 nurses voluntarily took part in the study.

Data Collection

The questionnaire on descriptive characteristics of the nurses and their status of offering preoperative education was used as the data collection tool. The first section of the data collection form has 7 questions on descriptive characteristics of the nurses, the second 5 questions on the status of nurses offering education, the third 10 questions about the education offered by the nurses and other questions about the teaching content. The nurses were informed about the study. The implementation of data collection forms lasted for about 20-25 minutes.

Data Assessment

Data were analyzed in the Statistical package for social sciences (SPSS) version 24. Frequency analysis was used for statistical analysis.

Ethical Approval

Written consent was obtained from a University Ethical Board and the Ministry of Health for the study. Moreover, the purpose of the study was explained and verbal/written consent was obtained from the nurses before distributing the questionnaire.

RESULTS

Of the nurses, 70% had a bachelors degree, 18.8% had a masters degree and 62.5% were married. About 45.0% of the nurses in the study were employed in the training and research hospital, 55.0% in the state hospital, 26.3% were commissioned in the general surgery, 26.3% in the gynecology and obstetrics and 32.5% in the orthopedics and traumatology services. About 30.0% of the nurses had the seniority of 3 years and under, 43.8% between 4-10 years and 26.3% were 11 years and above, while 41.3% of them had been working in their current department for 3 years and under (Table 1).

Table 1 Descriptive characteristics of the nurses (N=80)

Descriptive characteristics	Number (n)	Percentage (%)
Age (Years)		
27 years and under	27	33.8%
28-34 years	33	41.3%
35 years and over	20	25.0%
Educational status		
Associate's degree	9	11.3%
Bachelor's degree	56	70.0%
Master's degree	15	18.8%
Marital status		
Married	50	62.5%
Single	30	37.5%
Organizations		
Training and Research Hospital	36	45.0%
State Hospital	44	55.0%
Clinic		
General surgery service	21	26.3%
Gynecology and obstetrics service	21	26.3%
Orthopedics and traumatology service	26	32.5%
Neurosurgery service	2	2.5%
Urology service	7	8.8%
Ear nose throat service	3	3.8%
Professional seniority		
3 years and under	24	30.0%

4-10 years	35	43.8%
11 years and over	21	26.3%
Time of employment in the unit		
3 years and under	33	41.3%
4-10 years	36	45.0%
11 years and over	11	13.8%

About 88.8% of the nurses in the study offered preoperative patient education, 62.5% of those who offered training did so at the time of the patient's hospitalization for operation, 16.3% the day before operation and 8.8% the morning of the operation day. Of the nurses who offered patient training, 88.7% did so with verbal explanations and 67.6% with print materials/brochures. About 41.7% of the nurses who offered print materials/brochures did so after admission to the clinic and 22.9% after training. Of the nurses who did not offer preoperative training to patients, 55.6% reported that they failed to do so due to time constraints and 33.3% for patient overpopulation (Table 2).

Table 2 Distribution of the nurses by their status of offering preoperative education (N=80)

Status of offering education	Number (n)	Percentage (%)
Offering preoperative patient education		
Offered	71	88.8%
Did not offer	9	11.3%
Time of application (n=71)		
The day of hospitalization for operation	50	62.5%
The day before operation	13	16.3%
The morning of the operation day	7	8.8%
Only the operation day	1	1.3%
Education method (n=71)*		
Verbal explanation	63	88.7%
Print materials/brochures	48	67.6%
Standard forms	1	1.4%
Time of handing over print materials/brochures to the hospital (n=48)		
Before admission in the clinic	5	10.4%
After admission in the clinic	20	41.7%
After training	11	22.9%
To be read by the patient at home	12	25.0%
Reason for not offering education (n=9)		
Time constraints	5	55.6%
Insufficient number of nurses	1	11.1%
Patient overcrowding	3	33.3%

*Multiple options can be selected

It was determined of the nurses, 72.5% included the patient's family and relatives to the training process, 71.2% considered cultural characteristics and habits while offering training to the patient and patient's family, 62.5% were able to determine the suitable time and duration while offering training to the patient. About 72.5% of the nurses reported that they paid attention to not using medical terms in training, 81.2% allowed the patient and patients family to ask questions, 71.2% supported the patient and patients families involvement in all stages of training, 77.5% asked the patient to practice what he/she is taught, 67.5% controlled if the training was offered accurately and regularly (Table 3).

Table 3 Points considered by the nurses during preoperative education (N=71)

Topics	Yes	
	Number (N)	Percentage (%)
Including the patient's family and relatives to the training process	58	72.5%
Considering cultural aspects and habits while offering training to the patient and patient's family	57	71.2%
Ability to determine the necessary time and duration for patient training	50	62.5%

Having suitable tools and equipment for training in the respective unit	32	40.0%
Paying attention to not using medical terms in training	58	72.5%
Allowing the patient and patient's family to ask questions	65	81.2%
Supporting the patient and patient's family for involvement in all stages of training	57	71.2%
Asking the patient to practice what he/she is taught	62	77.5%
Controlling if training is offered accurately and regularly	54	67.5%
Recording the training	41	51.2%

It was determined that 77.5% of the nurses offered education about the location of the surgical service and introduction to the service and general rules, 83.8% visiting hours, 81.3% time to arrive at the hospital for an operation and 81.3% things to bring along to the hospital. About 78.8% of the nurses informed patients about the places where their family can wait during operation and 76.3% about eliminating fear and concerns of the patient and patients family about the operation. About 82.5% of the nurses provided patients with information about preoperative tests and examinations, 87.5% food and drink constraints, 88.8% intestines and skin preparation and 73.8% deep breathing, cough, extremity and rotation exercises. About 81.3% of the nurses informed patients about current or prospective medications, 78.8% postoperative drain, dressing and wound care, 81.3% postoperative diet and nutrition and 83.8% postoperative pain and management (Table 4).

Table 4 Education offered by the nurses to patients

Educations	Those who offer information	
	Number (n)	Percentage (%)
Introduction to the surgical service and its location, general rules	62	77.5%
Patient visiting hours	67	83.8%
Time to arrive at the hospital for an operation	65	81.3%
Things to bring along to the hospital	65	81.3%
Time of stay in the reanimation unit after the operation	45	56.3%
The location of the waiting hall for operation	54	67.5%
The location of the reanimation unit	48	60.0%
Places where the family can wait during operation	63	78.8%
Eliminating the patient and patient's family's fear and concerns about the operation	61	76.3%
What the patient will see and hear in the operating hall	43	53.8%
Preoperative tests and examinations	66	82.5%
Food and drink constraints	70	87.5%
Intestines and skin preparation	71	88.8%
Deep breathing, cough, extremity and rotation exercises	59	73.8%
Current or prospective medications	65	81.3%
Postoperative drain, dressing, and wound care	63	78.8%
Postoperative diet and nutrition	65	81.3%
Postoperative pain and management	67	83.8%

DISCUSSION

Patient education is an essential part of the quality of health care. The efforts to establish habits in individuals to maintain their well-being, teach the rules for healthy living to recover their health after sickness, improve life quality in chronic diseases and bring behaviors to participate in health services and defend health rights led to the emergency of patient education [6,10].

About 88.8% of the nurses in the study reported that they offered preoperative education to the patient (Table 2). Gürlek and Yavuz determined 78.5% of the nurses offered preoperative patient education. Preoperative education is one of the essential parts of patient care and one of the most important nursing interventions that contribute to positive patient results. Fulfillment of education requirements of patients is an indicator of qualified patient care [6,12,22].

Of the nurses who offered patient education, 88.7% did so with verbal explanations and 67.6% with print materials/ brochures (Table 2). Öztürk, et al., reported in their study that 55% of the nurses offered education with verbal explanation and 3% print materials. Gürlek and Yavuz reported 12.7% of training methods of the nurses were

comprised of verbal explanations and 25.4% print materials. There are 3 current methods of patient education, verbal education, print material/brochure and multimedia based training. The verbal training model is a good practice and essential method. In this training model, however, it should be noted that physical space is necessary for the nurse to give education to the patient and patients family. Print patient training materials are used to inform, counsel and guide the patient and patients family with regard to patient care. Print materials are of significant importance in patient education and strengthen verbal education. Multimedia based training is offered in the web environment using information technologies and with this method, patients, their families, and health care professionals can easily reach information without time and space constraints [4,17,20,22-26].

Gürlek and Yavuz reported in their study that an insufficient number of nurses constituted 50.1% and time constraints 21.4% of the reasons for not offering preoperative patient training. Babacan and Alıcı listed time constraints in 75.6% and an insufficient number of nurses in 57.4% as the reasons for not offering training. Bruccoliere concluded that the time constraints and an insufficient number of nurses led to the nurses not effectively offering patient education [18,21,22]. In our study, of the nurses who did not offer preoperative education to patients, 55.6% reported that they failed to do so for time constraints and 11.1% for an insufficient number of nurses (Table 2).

It was determined of the nurses in the study, 72.5% reported that they included the patients family and relatives to the education process, 71.2% considered cultural characteristics and habits while offering training to the patient and patient's family, 62.5% were able to determine the suitable time and duration while offering training to the patient (Table 3). Gürlek and Yavuz also reached similar conclusions. Patient training should not be limited to the patient. Patient training should also involve the first degree relatives of the patient and those who are in charge of patient care. Participation of the patient's family, relatives and those who are important for the patient facilitates fulfillment of the target of training and accelerates the recovery process. Cultural values are obstacles to training and significantly affect accord with training [6,12,22].

It was determined that 60.0% of the nurses in the study did not have suitable tools and equipment to offer education in the respective unit and 48.8% did not record the training they offered (Table 3). Sharing education with other team members and recording training are significantly important to create a data source for nursing studies and contribute to the development of the profession. Akçin reported 49.9% of the nurses did not record their education.

It was determined that 77.5% of the nurses offered education about the location of the surgical service and introduction to the service and general rules, 83.8% visiting hours, 81.3% time to arrive at the hospital for an operation and 81.3% things to bring along to the hospital (Table 4). Dolgun and Dönmez reported in their study that 30.4% of the nurses provided information about the things to be brought to the hospital and 44.9% about hospital rules.

In preoperative patient education offered by the nurses, 82.5% of the nurses provided patients with information about preoperative tests and examinations, 88.8% intestines and skin preparation, 83.8% postoperative pain and management, 73.8% deep breathing, cough, extremity, and rotation exercises (Table 4). According to the study conducted by Kutlu and Çetinkaya, 90.7% of the nurses did not teach the clinic patients about preoperative deep breathing and coughing exercises. It is promising to have obtained in our study high rates of offering information about deep breathing and coughing exercises which allow for keeping the patient's airway open and reduce complications in the postoperative period.

CONCLUSION

As a result of the study conducted with an aim to examine the status of nurses offering preoperative patient education in surgical clinics, we have concluded 88.8% of the nurses provided patients with training before the operation. It was determined that the nurses mostly provided training before the operation but there were some deficiencies in the realization of the education. It may be recommended to develop education materials/brochures and suitable tools and equipment for surgical nurses to offer comprehensive and effective preoperative training.

DECLARATIONS

Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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