Original Article

Assessment of Learning Needs in Patients Hospitalized In the General Surgery Clinic

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Abstract

Background: A planned patient training suited to the needs and personal characteristics of the patient is one of the most important factors in meeting the goal of a discharge training. The findings in the literature indicate that a training suited to the patients' learning needs helps them overcome difficulties related to their diseases; increases their compliance to and satisfaction with the treatment; and decreases unplanned re-admissions to hospital.
Aims: This study was conducted to assess the learning needs of the patients hospitalized in surgery clinics.
Methodology: This descriptive and cross-sectional study was conducted with 57 patients in the General Surgery Clinic. Data were obtained using the "Patient Information Form," and the Turkish version of the ''Patient Learning Needs Scale (PLNS) '' by the researhers.
Results: The mean total PLNS score was 215.6±27.9, indicating that the patients' learning needs were at an extremely significant level within the total scale. The most significant learning needs of the patients were treatment and complications (mean=39.7±3.9, level of significance=4.41), while the least important were the feelings related to condition (mean=19.9±3.8, level of significance 3.98). The study results indicated that the learning needs of general surgery patients are very high before their discharge from the hospital, and that treatment and complications were the main subjects where patients needed to be informed.
Conclusion: The effective management of complications and participation of the patients in this process can be ensured through the assessment of patient learning needs by surgery nurses according to the patients' own priorities. Thus, a key implication arising from this study is, raising awareness of educational roles of surgical nurses.
Keywords: Patient learning needs, surgery, nursing

Introduction

The application of fast track surgery, same-day surgical procedures and increased healthcare costs have decreased the duration of hospitalization. Also, reduced the time spent informing the patients and the procedures for discharge from the hospital(Sahin, İyigün & Acıkel, 2015). Due to Patients who are hospitalized and who undergo a surgical intervention need to be provided with information and explanations, and also to be supported, accepted, and understood, such that they can reacquire control of their lives and be able to resolve their health-related problems(Catal & Dicle, 2008; Erdil & Elbas, 2001). The priorities of the patients must be assessed about the issues they need during their

hospital stay, and they have to be trained in this regard.

Patient training helps individuals understand their diagnosis and treatment; to actively participate in their own care; to eliminate the sense of powerlessness related to their disease; to regain their health; to recover in a shorter period of time; and to continue their own care at home(Avsar & Kasıkcı, 2007; Senyuva & Tasocak, 2007). A planned patient training suited to the needs and personal characteristics of the patient is one of the most important factors in meeting the goal of a discharge training. The findings in the literature indicate that a training suited to the patients' learning needs helps them overcome difficulties related to their diseases; increases their compliance to and satisfaction with the treatment; and decreases unplanned re-admissions to hospital(Sahin, İyigün & Acıkel, 2015; Catal & Dicle, 2008; Bubela et al., 1990). In the study of Demrikiran & Uzun (2012), performed with patients who underwent operations for coronary artery bypass graft, and that of Sahin, İyigün & Acıkel, (2015), conducted with patients discharged after colorectal surgery to assess learning needs, it was reported that training suited to the patients' learning needs positively affects patient recovery after operation, and also increases patient satisfaction. In a meta-analysis of Johansson et al.(2005), investigating 11 studies with a total of 1044 patients, it was noted that pre-operative training increases the level of knowledge and decreases the level of anxiety among patients. Decrease in patient anxiety before surgery affects patient outcomes positively, since it decreases surgical stress response.

Perioperative patient education is a common and important intervention in surgical nursing; however, there is very limited systematic evidence on its precise role(Demrikiran & Uzun, 2012; Rigolosi,2012). In their study evaluating the patients' learning needs after surgery, Pieper et al.(2006) recommended that nurses should support and inform patients and their relatives in a manner suited to the patients' needs, and explain subjects such as preparation for surgery, post-operative care and home care after discharge. The study of Tan et al.(2013), determined that the subjects on which nurses chose to provide training differed from the subjects on which the patients wished to be trained . It has also been reported in similar studies that the time for patient education was wasted on teaching subjects considered important by nurses, while subjects considered important by the patients were often overlooked or omitted(Luniewski, Reigle & White, 1999; Wehby & Brenner, 1999). Therefore, nurses have to train patients by taking into account their specific needs. This study was conducted to assess the learning needs of the patients hospitalized in surgery clinics.

Materials and Methods

This descriptive and cross-sectional study was conducted in the surgery clinics of a university hospital from March 1, 2015 to May 31, 2015. The study population consisted of patients who underwent operations in the general surgery clinics between these dates, and who were planned to be discharged. The sampling of the study included 57 patients aged 18 years or above who were planned to be discharged, who were capable of communicating, and who accepted to participate in the study. The necessary approvals were obtained from the relevant institutions before the beginning of the study.

The patients were fully informed about the study. The data were collected 24- to 48-hours before the patients' discharge through the face-to-face interviews. Each patient interview lasted 20 to 25 minutes.

Data collection tools

The data collection tools used in this study included the Patient Information Form and the Patient Learning Needs Scale (PLNS). The patient information form included questions on age, gender, marital status, education level, and type of surgery of the participating patient; on the departments in which the participating patient was treated; and on whether the patient would recommend the hospital to others. The PLNS was first developed by Bubela et al. in 1990 to identify the importance of information from patients(Bubela et al., 1990). In this study, the Turkish version of the Patient Learning Needs Scale, for which validity and reliability studies were performed by Catal & Dicle(2006), was used after the necessary permissions were obtained.

The scale consists of seven subscales (medications, activities of living, community and follow-up, feelings related to condition, treatment and complications, enhancing quality of life, and skin care) and a total of 50 items. Each item is scored on a Likert-type scale of 1 (not important)

to 5 (extremely important). The total score ranges between 50 and 250.

Data analysis

Study data were analyzed using the SPSS 16.0 statistical software. The calculation of percentages was used in the data analysis; while the Kruskal-Wallis-H test was used for inter-groups comparisons.

Results

Results regarding the mean PLNS scores of the patients and their level of learning needs are shown in Table 1.

The mean age of the patients included in the study was 48.47±14 years, while 24.6% of the patients were in the 40 to 49 age group. Of the patients, 84.2% were married, 52.6% were male, and 45.6% were graduates of primary education. The mean duration of hospitalization was 9.54±6.8 days (min: 2, max: 38 days), and all of the patients had social security.

When the mean total PLNS scores and subscale scores of the patients were investigated, the mean total PLNS score was 215.6±27.9, which indicated that the patients' learning needs were at an extremely significant level within the total scale. The highest mean PLNS sub-scores in the study group were obtained in the treatment and complications (39.7±3.9) and activities of living (37.9±4.9) subscales, while the lowest mean sub-scores were obtained in the feelings related to condition (19.9±3.8) and skin care (21±2.8) subscales (Table 1).

The distributions of the socio-demographic characteristics and the mean PLNS sub-scores of the patients are shown in Table 2.Statistically significant differences were not identified between the means PLNS total scores with respect to the patients' age groups and marital status ($p>0.05$) (Table 2).When the PLNS subscales were compared with respect to patient gender; the mean scores for the medications, treatment and complications, and quality of life subscales, and the mean general total score were all found to be statistically significantly higher in male patients compared to female patients ($p<0.05$) (Table 2).When the PLNS subscales were compared with respect to the level of education, the mean scores for the community and follow-up, and feelings related to condition subscales were higher in literate patients compared to the other groups. These differences were statistically significant ($p<0.05$) (Table 2).

When the PLNS subscales were compared with respect to the type of surgery, the mean scores for the community and follow-up, and feelings related to condition subscales were statistically significantly higher in emergency patients compared to the elective cases ($p<0.05$) (Table 2).

Discussion

The mean total PLNS score of the patients was 215.6±27.9 in our study, and the patients' learning needs were at an extremely significant level within the total scale (Table 1). This result is similar to those of other studies performed by using PLNS. (Demrikiran & Uzun, 2012; Tan, Özdelikara & Polat, 2013; Tasdemir et al., 2010 Uzun, Ucuzal & Inan, 2011) This score was determined as 198.7 in the study of Tasdemir et al(2010). conducted with neurosurgery patients; as 196.9 in the study of Uzun, Ucuzal & Inan (2011) conducted with general surgery patients; and as 183.4 in the study of Demrikiran & Uzun(2012), conducted with patients who underwent CABG surgery. Tan, Özdelikara & Polat (2013) determined that the mean total learning needs score of patients hospitalized at internal medicine clinics as 204.2 .

In the present study, it was determined that patients mainly required learning in the areas of treatment and complications, followed by activities of living, medications, and finally quality of life (Table 1); this result is similar to the findings of other studies. (Demrikiran & Uzun, 2012; Tasdemir et al., 2010; Polat et al., 2014)

When we investigated the results of studies conducted with surgery patients by applying PLNS, we observed that the most common learning needs were in the areas (or subscales) of treatment and complications and activities of living among neurosurgery patients(Tasdemir et al., 2010); treatment and complications, activities of living, and enhancing the quality of life among orthopedic and colorectal surgery patients(Sahin, İyigün & Acıkel, 2015; Sendir, Büyükyılmaz & Musovi,2013); treatment and complications, usage of medications, and quality of life among general surgery patients(Uzun, Ucuzal, & Inan, 2011); activities of living, treatment and complications, and quality of life among patients who underwent CABG(Demrikiran & Uzun, 2012); and treatment and complications, quality of life and medications among patients evaluated in the study of Polat et al.(2014).

Table 1: The Mean PLNS Scores of the Patients and the Levels of Their Learning Needs

PLNS Subgroups	Item Number	Score of Scale Minimum Maximum	Patient Scores Minimum Maximum	Scores Mean±SD*	Learning Needs Significance Level
Medications	8	8–40	21–40	**34.4±3.9**	4.30
Activities of living	9	9–45	21–45	**37.9±4.9**	4.22
Community and follow-up	6	6–30	15–30	**25.0±3.2**	4.17
Feelings related to condition	5	5–25	7–25	**19.9±3.8**	3.98
Treatment and complications	9	9–45	26–45	**39.7±3.9**	4.41
Quality of life	8	8–40	21–40	**34.8±4.5**	4.35
Skin care	5	5–25	13–25	**21.0±2.8**	4.20
Total	**0**	**50–250**	**146–247**	**212.9±23.7**	**4.23**

Table 2. The Distributions of the Socio-Demographic Characteristics and the Mean PLNS Sub-Scores of the Patients (n=57)

Variables	Medication	Activities of living	Community and follow-up	Feelings related to condition	Treatment and complications	Quality of life	Skin care	Total
Age								
19-29	25.3	20.8	18.3	22	22.5	14.3	21	18.5
30-39	28.5	30.6	28.1	28.8	34.3	33.4	28.5	31.4
40-49	25.6	28.7	27.7	28.8	29.9	27.9	28.2	28
50-59	28.2	31.6	30.8	28.5	26.8	31.5	31.7	30.1
60 and above	34.8	27.3	32.6	31.9	26.8	27.6	29.9	29.6
	df:4	df:4	df:4	df:4	df:4	df:4	df:4	df:4
	KW:2.450	KW:1.574	KW:2.572	KW:1.143	KW:2.462	KW:4.544	KW:1.379	KW:2.011
	p>0.05	p>0.05	p>0.05	p>0.05	p>0.05	p>0.05	p>0.05	p>0.05
Gender								
Male	33.8	31.7	31.5	32.6	34.7	33.3	32.3	33.7
Female	23.5	25.9	26.1	24.9	22.5	24.2	25.3	23.6
	MW-U:259	MW-U:321.5	MW-U:328	MW-U:294.5	MW-U:231.5	MW-U:276	MW-U:305.5	MW-U:261.5
	p<0.05	p>0.05	p>0.05	p>0.05	**p<0.05**	**p<0.05**	p>0.05	**p<0.05**
Marital status								
Married	29.1	28.5	28.1	28	29.2	27.4	28.7	28.3
Single	28	31.5	33.5	34.1	28.8	37	30.5	32.7
	MW-U:259	MW-U:259	MW-U:259	MW-U:259	MW-U:259	MW-U:259	MW-U:259	MW-U:182.5
	p>0.05	p>0.05	p>0.05	p>0.05	p>0.05	p>0.05	p>0.05	p>0.05
Education								
Literate	42.3	40.0	43.5	48.6	31.6	39.1	39.8	41.8
Elementary	28.3	30.6	31.5	32.5	30.5	31	31.5	30.9
Secondary	31.5	31.4	33.9	29.6	32.5	31.5	31.2	32.3
University	25.2	21.9	17.3	18.3	22.7	21.3	20.5	20.1
	df:3	df:3	df:3	df:3	df:3	df:3	df:3	df:3
	KW:3.062	KW:4.623	KW:11.606	KW:11.738	KW:3.034	KW:5.090	KW:6.157	KW:6.934
	p>0.05	p>0.05	**p<0.05**	**p<0.05**	p>0.05	p>0.05	p>0.05	p>0.05
Admission to hospital								
Emergency	28.1	30	30.2	32.7	29.5	29.6	33.9	31.2
Elective	29.1	28.8	28.7	28.3	28.9	28.8	28	28.5
	MW-U:208	MW-U:206.5	MW-U:205	MW-U:182.5	MW-U:211	MW-U:210.5	MW-U:171.5	MW-U:195.5
	p>0.05	p>0.05	**p<0.05**	**p<0.05**	p>0.05	p>0.05	p>0.05	p>0.05

In the present study conducted with general surgery patients, no statistically significant differences were identified between the mean total PLNS scores with respect to the age groups and marital status of the patients ($p>0.05$) (Table 2). In other studies conducted with general surgery patients, it has been similarly determined that age and marital status do not significantly affect the learning needs of patients(Tasdemir et al., 2010; Uzun Ucuzal, & Inan, 2011). In the present study, the mean values of the total PLNS score, and the treatment and complications, and quality of life sub-scores were higher in male patients compared to female patients ($p<0.05$) (Table 2). Sendir et al(Sendir, Büyükyılmaz & Musovi,2013). reported that among patients who underwent total hip and knee replacement surgeries, the learning needs of males were higher than those of females. The importance placed on specific discharge information about complications and symptoms, and the quality of life related issues of men in this study suggests that they may need this information to better understand what has happened, and use this information to plan coping strategies. The literature states that if men are being asked to make most of the health care decisions in the family, it may indicate that they may have more information needs (Padula, 1996).

In our study, elementary school graduates had higher mean scores compared to the other groups of patients ($p>0.05$) (Table 2); this result is in agreement with the findings reported in other studies in the literature(Demrikiran & Uzun, 2012; Uzun Ucuzal, & Inan, 2011; Sendir, Büyükyılmaz & Musovi,2013; Dursun & Yılmaz, 2015). In addition to this; the mean scores of the community and follow-up, and feelings related to condition subscales were found to be significantly lower in both university graduates and patients hospitalized for elective reasons compared to other patients ($p<0.05$) (Table 2). These results indicate that the level of education affects learning needs, with higher patient education levels being associated with lower training needs; these results are concordant with the finding of previous studies(Hu et al., 2006).

Conclusion

An evaluation of our data and the findings in literature indicate that the areas where general surgery patients need training the most is treatment and complications. In this context, the surgery nurse - who plays a key role in the diagnosis, treatment and care of the patient - has to be able to meet learning needs in areas required by the patient. Such training and learning will allow patients to actively participate in the efficient management of their complications.

Surgery nurses have to manage and provide planned training programs regarding discharge that are suitable for the patients' characteristics and learning needs, such that patients will become able to ensure their own post-discharge care.

Implications for practice

The patients' needs are like road maps for discharge planning, and risk assessments. Thus, a key implication arising from this study is, raising awareness of educational roles of nurses.

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