ARAŞTIRMA

CERRAHİ HASTALARIN ÖĞRENİM GEREKSİNİMLERİ

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ÖZET

Amaç: *Tanımlayıcı türdeki bu araştırmada ameliyat olan hastaların taburcu olmadan önceki öğrenim gereksinimlerinin belirlenmesi amaçlandı.*

Yöntem: *Araştırmanın örneklemini Türkiye'nin batı bölgesindeki iki devlet hastanesinin cerrahi kliniklerinde ameliyat olan 575 hasta oluşturdu. Veriler, bireysel özellikleri içeren soru formu ve Hasta Öğrenim Gereksinimleri Ölçeği (HÖGÖ) ile yüz yüze görüşme tekniği ile toplandı. Verilerin analizi SPSS 11.0 programında tanımlayıcı istatistikler (sayı, yüzde, ortalama, standart sapma, minumum ve maksimim) ve gruplar arası karşılaştırmalar için t testi kullanılarak yapıldı.*

Bulgular: *Araştırmaya katılan hastalar HÖGÖ'nin ilaçlar ve yaşam kalitesi alt boyutlarından en yüksek, duruma ilişkin duygular, toplum ve izlem alt boyutlarından en düşük puanı aldı. Toplam HÖGÖ puanı ile hastaneye acil veya planlı yatma ve eğitim düzeyi arasında istatistiksel olarak anlamlı fark saptandı.*

Sonuç: *Araştırma bulguları; hastaların ameliyat sonrası taburcu olmadan önce ilaçlar ve yaşam kalitesine yönelik bilgi gereksinimleri olduğunu gösterdi. Cerrahi hemşireleri ameliyat sonrası hastaların kendi bakımlarını sağlayabilmesi için gereksinimlerine göre bireysel eğitim programları düzenlemelidir.*

Anahtar Kelimeler: *Cerrahi hastalar; taburculuk; hasta öğrenim gereksinimleri ölçeği; hastaların bilgi ihtiyacı.*

ABSTRACT

Learning Needs of Surgical Patients

Objective: *In this descriptive study it was aimed to describe learning needs of patients after surgery and before being discharged.*

Methods: *The study was conducted at two state hospitals surgery clinic in western Turkey.The sample of the study consisted of 575 surgical patients. The data were collected by using Patient Learning Needs Scale (PLNS) and demographic data sheet by face to face interviews.The analysis of the data was obtained by using descriptive statistical (frequencies, percentages, means, Standard deviations and range) and Student t test, in SPSS 11.0. Student t test were performed to compare the groups.*

Results: *Patients indicated how important it was for them to know about each of 50 information items before discharge from hospital.Findings indicated that subjects perceived medication and enhancing quality of life as most important to know and feelings related to condition, community and follow-up as least important.Total PLNS scores with emergency or elective hospital admission, occupation, and level of education was statistically significant.*

Conclusion: *These findings indicate that surgical patients were information for medications and quality of life needed before discharge from the hospital. Surgical nurses should be organize teaching programs according to their individual needs in order to provide their patients' care.*

Key Words: *Surgical patients; discharge; patient learning needs scale; Patients' information needs.*

INTRODUCTION

Advanced technological changes and economic factors have contributed to a shortened length of hospital stay for surgical patients (Jacobs 2000). Individuals who have experienced stress because of undergoing surgery are entering searches for information in order to readjust and in order to develop effective adaptation behaviors (Lazarus 2006). Several studies have shown surgical patients were given information both preoperative and postoperative has been improved their well-being, quality of care and satisfaction (Hodgkinson, Evans and O'Neill 2000; Johansson, Hupli and Salanterä 2002; Fitzpatrick and Hyde 2006; Pieper, Sieggreen, Freeland, Kulwicki, Frattaroli, Sidor et al.;Cebeci and Çelik 2008).

In a situation like this, patient education at discharge is very important in order for patients to manage self-care at home after the operation (Cebeci and Çelik 2008; Taşdemir,

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Güloğlu, Turan, Çataltepe and Özbayır 2010; Şendir, Büyükyılmaz and Muşovi 2013). Within this short period is preparing and training for patients for discharge very important (Jacobs 2000). While there has been considerable evidence suggesting the cost benefits of discharge information, the changing health care environment has brought about through contemporary issues such as patient participation in health care, increased use of technology, reduction in health care expenditure, and consumer rights the necessity for inquiry into whether patients perceive present discharge information as adequate (Henderson and Zernike 2001).

The need to improve the information given at discharge is documented in several studies (Fagermoen and Hamilton 2006; Uzun, Ucuzal and İnan 2011; Tan, Özdelikara and Polat 2013). From the studies reviewed, it is evident that patients have different priorities for information depending on the reasons for their admission and the kinds of surgery they undergo (Jacobs 2000). Some studies have shown that knowledge about possible complications, symptom management, pain relief, consequences of daily living, and wound care are all high priorities for surgical patients (Jacobs 2000; Lithner and Zilling 2000; Johansson, Hupli and Salanterä 2002; Johansson, Leino-Kilpi, Salanterä, Lehtikunnas, Ahonen, Elomaa et al. 2003; Cebeci and Çelik 2008).

Jacobs (2000) studied patients' perceptions of the information needed to manage self-care following a variety of abdominal-type surgical procedures. The Patient Learning Needs Scale (PLNS) was mailed to persons after discharge. The participants identified the following as the most important and having the highest priority: activity level, wound care, complications, pain management, elimination, and personal care.

Numerous studies show that proper training programme could play an important role in helping patients in recovery. Thus, potential problems and rehospitalizations can be significantly reduced. The well-planned discharge information may have economic effects in addition to the increased potential for patients' self-care management at home (Naylor, Brooten, Campbell, Jacobsen, Mezey, Pauly et al. 1999; Pieper, Sieggreen, Freeland, Kulwicki, Frattaroli, Sidor et al.;Cebeci and Çelik 2008).

Zalon (2004) examined pain, depression, and fatigue among adults undergoing major abdominal surgery in terms of impact on their functional status and their self-perception of recovery. Pain, depression, and fatigue accounted for significant percentages of the variation in functional status and perception of recovery.

Henderson and Zernike (2001) studied the impact of discharge information on patients undergoing an abdominal or colorectal surgical procedure. Usual or standard information given to patients included descriptions of the surgical procedure, pain management, and wound care. In terms of wound care, 73% indicated that they received information prior to discharge, and 91% stated that it was sufficient. Once they were home, only 78% felt that the wound care information was sufficient. The studies showed that it is important that information meets the needs of surgical patients and is given in accordance with their individual coping styles (Malkin 2000; Taylor and Norton 2000). Lack of information may lead to readmission and more frequent use of health services in the community (Cebeci and Çelik 2008). The nursing literature suggests that nurses are aware of the importance of providing appropriate discharge information (Avşar and Kaşıkçı 2009). The literature reveals that patient education has been recognized as a fundamental area of nursing practice for around 35 years. The sources identify a number of recurring themes, including the differing needs of patients, reduction of stress and appropriate professional support and issues related to effective health promotion (Smith and Liles 2007). Patients' individual information needs should be defined and the appropriate information content should be planned for each patient with the help of this knowledge (Avşar and Kaşıkçı 2009).

It is found out in studies in our country that the information needs of patients, underwent surgery, with regard to home care when they are discharged from hospital, are about nutrition/diet, drug use at home and postoperative complications and ways to prevent them (Cebeci and Çelik 2008; Çilingir and Bayraktar 2011; Uzun, Ucuzal and İnan 2011; Orgun and Şen 2012; Şendir, Büyükyılmaz and Muşovi 2013; Polat, Celik, Erkan and Kasali 2014). In the other studies, it is reported that the healing processes of patients, given discharge education, quicked, their self-confidences increased in parallel with their self-care capabilities, their repeated applications to hospital / clinic declined and, accordingly, the cost of patient care reduced and

quality of care increased (Güler and Taşkın 2001; Yaman and Bulut 2010).

Our conceptual framework establishes the main issues of concern for needs of education of surgical patients. This structure component is associated with an informal design or specific organizational elements of a program that are used in the program design. Components included in an informal design are screening and assessment protocols, documentation requirements, follow up programs, and designation of nurses as discharge trainer. This framework can be used to help perceived information needs of surgical patients for future clinical current management strategies, and develop evidence-based guidance for the development of new patient reported outcome measures for future outcomes research.

The purpose of this study was to describe learning needs of patients after surgery and before being discharged. In addition the relationship between demographic variables and learning needs was studied.

METERIAL AND METHODS

Study Design: A nonexperimental, descriptive study design utilizing written survey instruments was used to answer the research questions.

This paper will accordingly address the following questions:

- What are patients' learning needs after surgery and before hospital discharge?

- Do patients' demographic variables affect their learning needs?

Number and Type of Subjects: Data were collected from surgical wards in a district in the western region of Turkey in two state hospitals. For the purpose of this study, patients who had experienced abdominal surgery (open cholecystectomy, appendectomy, herniorrhaphy, and stomach surgery) were included. These procedures were selected because they are commonly performed surgical procedures and patients are expected to have a short hospital stay and an uncomplicated recovery. Patients were included in the study who (1) experienced abdominal surgery and completed the measures of relevant variables within 24 to hours prior to hospital discharge, (2) were oriented with regard to person, place, and time, (3) could speak and understand Turkish (4) were able to answer the questionnaire, (5) gave voluntary consent, and (6) were over 18 years old.

Study Population: The study was carried out between 19 March and 19 October 2009 with 600 patients who were hospitalized to undergo operation in this period. The sampling selection method wasn't used in the study. The sample included 575 patients in this study. Patient of 25 excluded from the study due to incomplete questionnaire filled. The study participation rate is 95.8%.

Measurement: A structured questionnaire consisting of a Turkish version of the PLNS and a demographic data sheet was used. The questionnaire required about 20 minutes to complete.

- *The demographic data sheet:* The demographic data sheet was completed at the end of the study. Information was requested on variables related to the participant's age, gender, marital status, educational level, income level, residence, and previous experience of surgery. Sociodemographic and clinical data were obtained from the subject's current hospital record and by talking with the patient himself.

- *The Patient Learning Needs Scale (PLNS):* The Scale (PLNS), a 50-item self-administered questionnaire developed by Bubela and collegues (1990), was used to measure perceived informational needs (Bubela, Galloway, McCay, McKibbon, Nagle, Pringle et al., 1990). The validity and reliability of PLNS in Turkey was demonstrated by Çatal and Dicle (Çatal and Dicle 2008). This scale a self-administered questionnaire for patients was developed through patient interviews and the clinical experiences of nursing experts. The scale is consisted of 50 items and seven subscales which are assessed by a Likert type1: (not at all important) and 5: (extremely important) rating scale. The subscales were;(1) medications (eight items);(2) activities of living (nine items);(3) community and follow-up (six items);(4) feelings related to their condition (five items);(5) treatment and complications (nine items);(6) enhancing quality of life (eight items);and (7) skin care (five items). Internal consistency reliability is reported to be high, with a Cronbach's alpha of 0.95 for the total scale and alphas ranging from 0.69 to 0.88 for the subscales (Bubela, Galloway, McCay, McKibbon, Nagle, Pringle et al. 1990). In the present study, Cronbach's alpha was 0.96 for the total scale and from 0.75 to 0.94 for the seven subscales.

Intervention: The research assistant approached patients who expressed an interest in hearing about the study to explain the study in detail, answer any questions that the patient

might have, and obtain written consent. Following receipt of informed consent from those interested in participating in the study, subjects were asked to rank each item according to how important it was to learn the item before discharge in order to manage their care at home. The importance of the statements was evaluated with a five point Likert scale (1=not important, 2=less important, 3=fairly important, 4=very important and 5=extremely important), which has been used in most previous studies also. Those patients who agreed to participate in the study completed the questionnaire in an interview room of the surgical wards with the help of the research assistant. The time interval 24 to 48 hours prior to hospital discharge was selected for data collection.

Ethical Considerations: Permission for the study was obtained the hospitals where the research was carried out. Both written and verbal information were given and questions answered prior to signing the consent form.

Patients' written consent for the study was obtained before inclusion. They were informed of the purpose of the study, anonymity and confidentiality of data were assured, and patients had the right to withdraw from the study at any time.

Study Limitation: The limitations of this study were related to the place where it was carried out and to its sampling criteria. The study was carried out at two state hospitals in Turkey, which means that we can make no generalizations beyond state hospitals in Turkey. Generalization to other state hospitals is possible because these are all very similar in Turkey and the patients included in this study are representative of the patient population of state hospitals in general. This study provides useful clues most particularly for the purpose of planning patient education at state and other larger hospitals.

A further limitation is that the participants were only selected from abdominal surgery procedures. The sample only focused on four particular groups of patients who had undergone abdominal surgery procedures.

It might be useful in future studies to include more than one surgery unit and other groups of patients who undergoing different surgical procedures.

Type of Statistical Analysis: The statistical analyses were carried out using Statistical Package for the Social Sciences (SPSS) 11.0 program software. Descriptive statistics (frequencies, percentages, means, Standard deviations and range) were used to summarize the demographic data on the patients. Mean subscales scores and standard deviations for each subscale of PLNS were calculated. The learning needs were rank-ordered to determine the most important areas of concern. Relationships between demographic variables and PLNS scores were tested by independent samples t-test. Cronbach α test was used to assess the reliability of the questionnaires. The significance level was set at $p<0.05$.

FINDINGS AND DISCUSSION

A total of 575 surgical patients participated in the study. This total was comprised of 312 men and 263 women.

Table 1. Characteristics of Patients (n=575)

Characteristics	n	%
Age		
50 years ≤	292	50.8
51 years>	283	49.2
Gender		
Female	263	45.7
Male	312	54.3
Marital status		
Married/permanent relationship	436	75.8
Single, widowed, divorced	139	24.2
Education		
Elementary school	487	84.7
High school/University	88	15.3
Surgery type		
Open cholecystectomy	180	31.3
Stomach surgery/ Appendectomy/ Herniorrhaphy	395	68.7
Hospital admission		
Emergency	176	30.6
Elective	399	69.4
Previous operation		
Yes	206	35.8
No	369	64.2
Monthly income level		
TL 1000-2000 ≥	391	68.0
<=TL 999	184	32.0
Occupation		
Retired	391	68.0
Officer/worker	184	32.0
Residence		
Large town or city	414	72.0
Village or small town	161	28.0
Living arrangements		
Living alone	64	11.1
Living with family or friends	511	88.9

The patients' age ranged from 18 to 75 years (mean age=46.8±10.6 years). More than half of the patients (50.8%) were 50 years of age. Among the patients 75.8% were married or in a permanent relationship, most participants had completed elementary school (84.7%). Approximately one third of patients (31.3%) had been performed open cholecystectomy Over half of them (70.8%) had no previous experience of surgical procedure and 69.4% were elective patients. The monthly household income was middle level (TL 1000-2000 ≥) (68.0%) and 68.0% were retired. More than half of the patients (72.0%) reported residing in cities or larger towns and 88.9% were living with family.

Subjects identified a high need for information in specific areas in order to manage their care at home. The information in the subscales "medications" and "enhancing quality of life" was considered to be of most importance. A summary of the mean total and subscale scores is presented in Table 2.

The study found that information pertaining to medication and enhancing the quality of life is important for the well-being of patients after discharge. Feelings related to condition, community and follow-up were reported as least important to learn. Similarly, the ten most popular PLNS items are concerned with enhancing quality of life, medication and treatment, and complications. This supports the view that patients in early recovery value information pertinent to their survival. Findings from this study highlight the specific information needed by patients on early discharge from the hospital following short-term surgical procedures. This study examined the information needs of surgical patients, and the results provide important information. The results indicate that individuals who are going home after a surgery have a need for health information. Earlier studies with other patients groups have produced similar results (Uzun, Ucuzal and İnan 2011; Orgun and Şen 2012; Şendir, Büyükyılmaz and Muşovi 2013; Tan, Özdelikara and Polat 2013; Polat, Celik, Erkan and Kasali 2014). To determine specific informational needs, the items that were rated highest in the PLNS scale were identified in this study. The information of highest priority related to skin care, community and follow-up, activities of living and enhancing quality of life. But, in study by Jacobs (2000) was determined to the information of highest priority related to activity, wound care, complications, pain management, elimination, and personal care (Jacobs 2000).

In study by Uzun, Ucuzal and İnan (2011), information needs identified by patients who had undergone general surgical procedures included information related to treatment and complications, activities of daily living, medications, quality of life, community and follow-up, and skin care. Previous studies that have examined information needs at discharge and after discharge of patients who have undergone surgical procedures have reported similar results (Şendir, Büyükyılmaz and Muşovi 2013; Polat, Celik, Erkan and Kasali 2014).

In Jacobs' study (2000), the information of highest priority related to activity, wound care, complications, pain management, elimination, and personal care. Other patient discharge concerns identified include suture removal, how to improve their physical condition, medications, fatigue, and bowel habits (Jacobs 2000; Zalon 2004).

Table 2. Mean scores for Informational Needs Using PLNS Total Scale and Subscales

Scale	Number of items	Mean	SD	Range
Medications	8	4.06	0.60	1.13-5.00
Activities of living	9	3.75	0.63	1.67-5.00
Community and follow-up	6	3.67	0.71	0.70-5.00
Feelings related to condition	5	3.60	0.77	1.40-5.00
Treatment and complications	9	3.88	0.60	1.44-5.00
Enhancing quality of life	8	3.91	0.63	1.50-5.00
Skin care	5	3.69	0.78	1.40-5.00
Total	**50**	**3.82**	**0.56**	**1.58-5.00**

In anoher study, the patients had the highest learning needs in the domains of treatment and complications, enhancing quality of life, medications, activities of living, community and follow-up, feelings related to condition and skin care (Polat, Celik, Erkan and Kasali 2014).

Table 3. Items on the PLNS Identified by Subjects as Most Important

Items	Mean (SD)
How to prevent my skin from getting sore	4.19 (0.97)
How to get through the "red tape" in the health care system	4.14 (0.89)
What to do if I cannot sleep properly	4.13 (0.86)
How this illness will affect my life	4.11 (0.86)
Which foods I can and cannot eat	4.10 (0.91)
What symptoms I may have related to my illness	4.09 (0.87)
What physical exercise I should be getting	4.08 (0.94)
Where to get help for my family to deal with my illness	4.07 (0.85)
Why I need to take each medication	4.05 (0.89)
How to get through the "red tape" to get services at home	4.05 (0.85)

A summary of İtems on the PLNS İdentified by subjects as most İmportant is presented in Table 3. In order to determine specific informational needs, the items that were rated highest in the PLNS scale were identified. The information of highest priority related to medication, enhancing quality of life, and treatment, and complications. The highest subscale scores were as follows; medication, enhancing quality of life and treatment and complications. These findings are outlined in Table 3. Barthelsson, Lützén, Anderberg and Nordström (2003) carried out a study investigating patients' experiences of laparoscopic cholecystectomy using qualitative methods. The findings pointed to problems with wound care, pain management, a sore throat after intubation and struggles with resuming activities of daily life. In another study, some general surgery and urology patients alluded to finding it stressful coping with threats to body image through 'skin discoloration', 'swelling' or 'bruising', because they did not know what to do (Gilmartin 2007). In the study of Karadağ and Aksoy (2002), it is ascertained that patients want to receive information at the most about arranging their daily life activities and considerations to be taken into account at home before discharge. Çilingir and Bayraktar (2011) determined that, patients need to be informed about pain management, problems related to the respiratory, digestive, nervous, urinary and musculoskeletal systems, vital signs, emotional state, and use of medications and how to reach health care personnel in the postoperative period at home.

A summary of comparasion between and some charecteristics of patients are is presented in Table 4. Total PLNS scores with emergency or elective hospital admission, occupation, and level of education was statistically significant ($p<0.05$). Mean subscale scores of activities of living of patients and treatment and complications aged 50 years were high. The total PLNS and the means of all subscale scores were high for patients who had been admitted to the hospital and undergone surgery under emergency circumstances. The mean score of total PLNS for patients with officer/worker and for those with high school education and above were high. There was no significant difference between PLNS scores and other demographic variables. This study explored whether the demographic variables of age, gender, hospital admission, occupation or educational level could impact the perception of information needs in a sample of surgical patients. No statistically significant differences were found between age, gender, income level and total scores of PLNS. The results of this study were similar to those of Taşdemir, Güloğlu, Turan, Çataltepe and Özbayır (2010). Comparison between demographic data and the PLNS scores showed that females were generally more desirous of information than males (Uzun, Ucuzal and İnan 2011; Polat, Celik, Erkan and Kasali 2014). Whilst some previous PLNS studies report no association between age and information needs, those studies found that older people would like more information about community resources (Jacobs 2000). In some studies however, the number of perceived information needs differed by gender. Women had stronger information needs before discharge, but there were no differences between women's and men's information needs after discharge (Johansson, Hupli and Salanterä 2002; Uzun, Ucuzal and İnan 2011). In other studies, men reported a higher number of perceived information needs than women (Fredericks, Guruge, Sidani, and Wan 2009). Statistically significant differences were found between hospital admission, occupation, education and total scores of PLNS. Other studies have found no differences in total scores on the PLNS based on gender or education (Taşdemir, Güloğlu, Turan, Çataltepe and Özbayır 2010). In a study by Henderson and Chien (2004), college/university level of education was significantly different from the other levels.

Table 4. Comparasion between and Some Charecteristics of Patients

Characteristics	n	Medications Mean±SD	Activities of living Mean±SD	Community and follow-up Mean±SD	Feelings related to condition Mean±SD	Treatment and complications Mean±SD	Enhancing quality of life Mean±SD	Skin care Mean±SD	PLNS total Mean±SD
Age									
50 years ≤	292	4.07±0.60	3.81±0.65	3.71±0.74	3.65±0,78	3.92±0.63	3.93±0.65	3.73±0.80	3.86±0.58
51 years>	283	4.05±0.60	3.69±0.60	3.63±0.66	3.55±0.75	3.83±0.56	3.88±0.62	3.64±0.75	3.78±0.54
		p=0.810*	**p=0.019***	p=0.155*	p=0.131*	p=0.085*	p=0.267*	p=0.141*	p=0.094*
Gender									
Female	263	4.06±0.56	3.72±0.64	3.66±0.68	3.57±0.76	3.87±0.57	3.91±0.60	3.66±0.78	3.80±0.55
Male	312	4.06±0.63	3.78±0.62	3.68±0.73	3.63±0.77	3.89±0.62	3.90±0.66	3.70±0.78	3.83±0.57
		p=-0.059*	p=-1.038*	p=0.790*	p=0.356*	p=0.677*	p=0.980*	p=0.546*	p=0.585*
Hospital admission									
Emergency	176	4.17±0.56	3.85±0.62	3.81±0.66	3.72±0.75	4.00±0.58	3.99±0.62	3.83±0.74	3.93±0.54
Elective	399	4.01±0.61	3.71±0.63	3.61±0.72	3.55±0.77	3.82±0.60	3.87±0.64	3.62±0.78	3.77±0.56
		p=0.002*	**p=0.017***	**p=0.002***	**p=0.013***	**p=0.001***	**p=0.041***	**p=0.003***	**p=0.001***
Monthly income level									
TL 1000-2000 ≤	391	4.04±0.59	3.73±0.63	3.64±0.69	3.58±0.74	3.86±0.58	3.91±0.61	3.63±0.78	3.80±0.54
>=TL 999	184	4.09±0.61	3.79±0.63	3.75±0.74	3.65±0.82	3.91±0.64	3.90±0.68	3.80±0.76	3.86±0.60
		p=0.382*	p=0.315*	p=0.085*	p=0.279*	p=0.339*	p=0.872*	p=0.017*	p=0.212*
Occupation									
Retired	391	3.99±0.63	3.70±0.63	3.63±0.71	3.58±0.76	3.81±0.61	3.85±0.65	3.64±0.77	3.76±0.57
Officer/worker	184	4.19±0.51	3.87±0.62	3.77±0.68	3.65±0.78	4.03±0.53	4.03±0.58	3.79±0.79	3.93±0.52
		p=0.000*	**p=0.002***	**p=0.030***	**p=0.335***	**p=0.000***	**p=0.001***	**p=0.033***	**p=0.001***
Education									
Elementary school	487	4.03±0.61	3.74±0.61	3.65±0.70	3.58±0.77	3.84±0.59	3.87±0.64	3.68±0.77	3.79±0.56
High school/ University	88	4.19±0.55	3.85±0.71	3.79±0.72	3.73±0.75	4.06±0.60	4.08±0.58	3.71±0.84	3.95±0.55
		p=0.023*	p=0.114*	p=0.098*	p=0.084*	**p=0.002***	**p=0.006***	p=0.732*	**p=0.019***

* Student t test

Patients with higher levels of education may be more likely to comply with the treatment plan and to engage in self-care. The higher the person's level of education, the more likely they will be to engage in a higher order of thinking to influence perception and interpretation of information. Whilst the literature offers very little discussion about employment status and learning needs, Johansson, Hupli and Salanterä (2002) discovered that after discharge, retired hip replacement patients had stronger information needs than those still working. Similar results were obtained in this study.

CONCLUSION

Findings from this study highlight the specific information needed by patients on early discharge from the hospital following short-term surgical procedures. These findings give guidelines for content that should be included when preparing patients to manage their own care following short-term surgical procedures and when developing teaching programs to meet the needs of surgical patients. In further researches first, surgical patients should be identified learning needs of prior to discharge. Later, training should be provided according to the needs identified. Information should be individualized according to the needs and life style of each individual. Discharge information should include guidelines for medication and activities of living, including what activities should be restricted, how much exercise is appropriate, and how to balance rest and activity as activity levels increase and usual routines resume following discharge. Patients need information about wound care, pain control, complications, and guidelines for personal care such as showering or bathing.

These results can also be used in nurses 'education. It is important to emphasize to future nurses the importance of patient education and the observation of patients' learning needs. These results are also important to nurses who work in practical fields. Patient education should be particularly directed to less-educated people, and the PLNS can be used as a tool to chart the need for individual teaching. By using this tool, it is possible to find the most important learning needs of the patient at a general level. Nurses should be alert to recognize and evaluate the learning needs of their patients. Are there perhaps groups of patients who get less guidance and information even though their needs are be great? Individual care also means evaluation of individual learning needs.

Study results with regard to the educational topic categories can provide a framework for planning educational interventions for surgical patients. Nurses can develop teaching programs for patients who are discharged following surgical procedures so that patients recovering from surgery at home may have a better recovery with fewer complications so that the patients' quality of life will increase.

REFERENCES

Avşar G, Kaşıkçı M. The Condition of Patient Education in our Country. Journal of Ataturk University School of Nursing 2009;12(3):67-73.

Barthelsson C, Lützén K, Anderberg B, Nordström G. Patients' Experience of Laparoscopic Cholecystectopy. The Journal of Clinical Nursing 2003;12(2):253–9.

Bubela N, Galloway S, McCay E, McKibbon A, Nagle L, Pringle D. et al. The Patient Learning Needs Scale: Reliability and Validity. Journal of Advanced Nursing 1990;15(10):1181-7.

Çatal E, Dicle A. A Validity and Reliability Study of the Patient Learning Needs Scale in Turkey. DEUHYO ED 2008;1(1):19-32.

Cebeci F, Çelik SŞ. Discharge Training and Counselling Increase Self-Care Ability and Reduce Postdischarge Problems in CABG Patients. Journal of Clinical Nursing 2008;17(3):412–20.

Çilingir D, Bayraktar N. Information Requirements and Difficulties Experienced After Discharge in Day Surgery Patients: A Descriptive Cross-Sectional Survey. Türkiye Klinikleri Journal of Medical Sciences 2011;31(1):164-75.

Fagermoen MS, Hamilton G. Patient Information at Discharge- A Study of A Combined Approach. Patient Education and Counseling 2006;63(1-2):169–76.

Fitzpatrick E, Hyde A. Nurse-Related Factors in the Delivery of Preoperative Patient Education. The Journal of Clinical Nursing 2006;15(6):671-7.

Fredericks S, Guruge S, Sidani S, Wan T. Patient Demographics and Learning Needs: Examination of Relationship. The Journal of Clinical Nursing 2009;18(4):307–22.

Gilmartin J. Contemporary day surgery: patients' experience of discharge and recovery. The Journal of Clinical Nursing 2007;16(6):1109–17.

Güler H, Taşkın L. The Effect of Health Education in Coping with Problems after the Hysterectomy. Journal of Cumhuriyet Unıversıty School of Nursıng 2001;5(2):9-18.

Henderson A, Chien WT. Information Needs of Hong Kong Chinese Patients Undergoing Surgery. Journal of Clinical Nursing 2004;13(8):960-6.

Henderson A, Zernike W. A Study of the Impact of Discharge Information for Surgical Patients. Journal of Advanced Nursing 2001;35(3):435-41.

Hodgkinson B, Evans D, O'Neill S. Knowledge Retention from Pre-Operative Patient Information. Best Practice 2000;4(6):1-6.

Jacobs V. Informational Needs of Surgical Patients Following Discharge. Applied Nursing Research 2000;13(1):12- 8.

Johansson K, Hupli M, Salanterä S. Patients' Learning Needs after Hip Arthroplasty. The Journal of Clinical Nursing 2002;11(5):634–9.

Johansson K, Leino-Kilpi H, Salanterä S, Lehtikunnas T, Ahonen P, Elomaa L. et al. Need for Change in Patient Education: A Finnish Survey from the Patient's Perspective. Patient Education and Counseling 2003;51(3):239–45.

Karadağ M, Aksoy G. Impact of Educational Role of Nurse on Quicken Patients Healing at Home in Lumbar Disc Hernia Surgery. Düşünen Adam the Journal of Psychiatry and Neurological Sciences 2002;15(4):245-53.

Lazarus RS. Emotions and Interpersonal Relations: Toward A Person-Center Conceptualization of Emotions and Coping. Journal of Personality 2006;74(1):9-46.

Lithner M, Zilling T. Pre-and Postoperative Information Needs. Patient Education and Counseling 2000;40(1):29–37.

Malkin KF. Patients' Perceptions of a Pre-Admission Clinic. Journal of Nursing Management 2000;8(2):107–13.

Naylor MD, Brooten D, Campbell R, Jacobsen BS, Mezey MD, Pauly MV. et al. Comprehensive Discharge Planning And Home Follow-Up Of Hospitalized Elders: A Randomized Clinical Trial. The Journal of the American Medical Association 1999;281(7):613–20.

Orgun F, Şen G. Determination of the Learning Needs of Hospitalized Patients in Surgical Units of State Hospital. SSTB International Referred Academic Journal of Sports 2012;2(4):52-64.

Pieper B, Sieggreen M, Freeland B, Kulwicki P, Frattaroli M, Sidor D, et al. Discharge Information Needs of Patients after Surgery. J Wound Ostomy Continence Nurs 2006;33(3):281-92.

Polat S, Celik S, Erkan HA, Kasali K. Identification of Learning Needs of Patients Hospitalized at a University Hospital. Pak J Med Sci 2014;30(6):1253-8.

Şendir M, Büyükyılmaz F, Muşovi D. Patients' Discharge Information Needs after Total Hip and Knee Arthroplasty: A Quasi-Qualitative Pilot Study. Rehabil Nurs. 2013;38(5):264-71.

Smith J, Liles C. Information Needs before Hospital Discharge of Myocardial Infarction Patients: A Comparative, Descriptive Study. The Journal of Clinical Nursing 2007;16(4):662-71.

Tan M, Özdelikara A, Polat H. Determining the Patients Learning Needs. Florence Nightingale Journal of Nursing 2013;21(1):1-8.

Taşdemir N, Güloğlu S, Turan Y, Çataltepe T, Özbayır Ö. Learning Needs of Neurosurgery Patients. Journal of Neurological Sciences 2010; 27:(4):414-20.

Taylor C, Norton C. Information Booklets for Patients with Major Bowel Resection. British Journal of Nursing 2000;9(12):785–91.

Uzun Ö, Ucuzal M, İnan G. Post-Discharge Learning Needs of General Surgery Patients. Pakistan Journal of Medical Sciences 2011;27(3):634-7.

Yaman Y, Bulut H. Evaluation of Discharge Training Given to Patients who have undergone Heart Valve Replacement. Turkish Journal of Thoracic and Cardiovascular Surgery 2010;18(4):277- 83.

Zalon ML. Correlates of Recovery among Older Adults after Major Abdominal Surgery. Nursing Research 2004;53(2):99-106.