

THE DISCHARGE RELATED LEARNING NEEDS OF HEMATOPOIETIC STEM CELL TRANSPLANT RECIPIENTS

Hematopoetik Kök Hücre Alıcılarının Taburculuk Aşamasında Öğrenme Gereksinimleri

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ABSTRACT

This study has been carried out to determine the learning needs of patients undergoing hematopoietic stem cell transplantation at the discharge stage. 100 patients undergoing transplantation in the Stem Cell Transplantation Unit of a university hospital in Turkey in 2018 have constituted the sample of the study. The "Patient Information Form" and the "Patient Learning Needs Scale" have been used as data collection tools in the study. In the study, the data have been collected 2-48 hours before the patients were discharged. The mean total score of the Patient Learning Needs Scale of the patients is 212.93 ± 29.37 , and the learning needs of the patients are generally high. The mean score of the treatment and complications subscale is 4.40 ± 0.61 , and the level of significance of the patients' learning needs is highest in this dimension. This is followed by; quality of life, drugs, life activities, community and follow-up, skin care and feelings about the condition, respectively. The mean total score of the scale was not affected by gender, marital status, employment status, existing chronic disease, educational level, and type of transplantation ($p > 0.05$). It was concluded that the learning needs of each patient undergoing hematopoietic stem cell transplantation were high.

Keywords: Discharge, Hematopoietic stem cell transplantation, Learning needs, Patient

ÖZ

Bu araştırma, hematopoetik kök hücre nakli uygulanan hastaların taburculuk aşamasında öğrenme gereksinimlerini belirlemek amacıyla yapılmıştır. Araştırmanın örneklemini Türkiye’de bir üniversite hastanesinin Kök Hücre Nakil Ünitesinde 2018 yılında nakil olan 100 hasta oluşturmuştur. Araştırmada veri toplama aracı olarak “Hasta Bilgi Formu” ve “Hasta Öğrenme Gereksinimleri Ölçeği” kullanılmıştır. Araştırmada veriler hasta taburcu olmadan 2-48 saat önce toplanmıştır. Hastaların ölçek toplam puan ortalaması 212.93 ± 29.37 olup, hastaların genel olarak öğrenme gereksinimleri yüksektir. Tedavi ve Komplikasyonlar alt boyut puan ortalaması 4.40 ± 0.61 olup hastaların öğrenme gereksinimlerinin en yüksek olduğu boyuttur. Bunu sırasıyla yaşam kalitesi, ilaçlar, yaşam aktiviteleri, toplum ve izlem, cilt bakımı ve duruma ilişkin duygular izlemektedir. Ölçek toplam puan ortalamasını cinsiyet, medeni durum, çalışma durumu, mevcut kronik hastalık, eğitim düzeyi, nakil tipi etkilememektedir ($p > 0.05$). Hematopoetik kök hücre nakli uygulanan her hastanın öğrenim gereksinimlerinin yüksek olduğu sonucuna ulaşılmıştır.

Anahtar kelimeler: Hastalar, Hematopoetik kök hücre transplantasyonu, Öğrenme gereksinimi, Taburculuk

INTRODUCTION

Cancer, which is a major health problem all over the world and in our country today (Kurt & Unsar, 2011), negatively affects the physical and psychological health and the social and economic status of the patients and also caregiver family members due to its high cost and the problems related to the disease process and treatment (Görgülü & Akdemir, 2010). Hematopoietic stem cell transplantation (HSCT), which is one of the cancer treatment methods, and high dose chemotherapy treatment in relation to it may lead to physical, psychosocial and mental problems in patients (Kapucu & Karacan, 2008; Pehlivan, Vatansever, Arslan, Yildiz & Ersoy, 2019; Şahin, Polat & Ergüney, 2009). Before and after transplantation, patients face neutropenia, infection, bleeding, pain, fatigue, nausea and vomiting, dehydration, diarrhea, mucositis, changes in the skin and nails, and mental problems (Kurt & Unsar, 2011; Ovayolu, Ovayolu, Kaplan, Pehlivan & Karadağ, 2013) which also negatively affects the quality of life of caregivers (El-Jawahri et al., 2015). For these reasons, post-treatment care and follow up responsibilities of cancer patients and their families increase (Dursun Başaran & Yılmaz, 2015; Polat, 2011). The individuals who are discharged may have problems related to complications, drug treatment, performing activities of daily living, and symptoms, usually in the first weeks at home. While patients change their lifestyles, they also have problems with their family and friendship relations and difficulties in returning to their previous social activities. While family members who provide primary care to cancer patients undergoing transplantation fulfill all patient supporting roles, they often experience stress since their patients are not ready for care at home. Cancer patients are affected by this condition, which is reflected in their symptoms (Polat, 2011). So, when patients cannot solve the problems they face in treatment and home care, the need for repeated hospital attendments and even hospitalization increase (Soyer, Candan Dönmez & van Giersbergen Yavuz, 2018). Patients should be aware of the symptoms so that they can cope with the symptoms they have experienced when they are discharged after transplantation (Kurt & Unsar, 2011). Therefore, it is important to inform and support the cancer patient and his/her family (Yılmaz Şahin, İyigün & Açıkel, 2015).

A good discharge education is required for the patients to be protected from complications, to detect possible complications in the early period, to perform their self-care, to support their own care and to maintain their home care and treatment (Dursun Başaran & Yılmaz, 2015; Soyer et al., 2018). Nurses, who are in personal contact with the patient/family during the treatment and

care process, have a significant role in the planning and implementation of discharge education (Çetinkaya & Duru Aşiret, 2017; Dursun Başaran & Yılmaz, 2015; Güçlü & Kurşun, 2017; Tan, Özdelikara & Polat, 2013). Nurses should prepare an education plan appropriate to the patient's needs and individual characteristics in order to achieve the aim of the patient education before performing it (Çetinkaya & Duru Aşiret, 2017; Dursun Başaran & Yılmaz, 2015; Kılıç, Bağçivan, Akbayrak & Çiçek, 2018; Pehlivan et al., 2019). The determination of individual needs will make the education provided to the patient more beneficial and efficient (Çetinkaya & Duru Aşiret, 2017; Dursun Başaran & Yılmaz, 2015; Orgun & Şen, 2012).

Conscious nursing interventions are effective in preventing and reducing post-transplant complications of patients (Kurt & Unsar, 2011; Pehlivan et al., 2019). Based on these data, this study was planned to determine the learning needs of cancer patients with hematopoietic stem cell transplantation and to develop appropriate nursing practices.

MATERIALS AND METHODS

Type of Study

This study was carried out as a descriptive cross-sectional study in order to determine the learning needs of the patients undergoing HSCT at the discharge stage, and the associated factors.

Population and Sample

The patients who were hospitalized in the Stem Cell Transplantation Unit of a medical school hospital in Malatya province between 01.01.2018 and 31.12.2018 and underwent HSCT constituted the population of the study. The inclusion criteria for the study were being 18 years and older, speaking Turkish, and lack of mental disorder. The sample of the study consisted of 100 patients who met the inclusion criteria and agreed to participate in the study.

Data Collection Tools

The "Patient Information Form", and the "Patient Learning Needs Scale (PLNS)" aimed at determining patients' needs for discharge education were used as data collection tools in the study. In the study, the data were collected 2-48 hours before the patients were discharged.

Patient Learning Needs Scale (PLNS)

The "Patient Learning Needs Scale (PLNS)", which was first developed by Bubela and et al., in 1990 and adapted to Turkish by Çatal and Dicle in 2008 was used to determine the

information needs of patients at the discharge stage (Bubela et al., 1990; Çatal & Dicle, 2008). The scale consists of a total of 50 items and 7 subscales (Table 1). Information on the number of items of the total scale and its subscales, item numbers and minimum, and the lowest and highest values that can be obtained from the scale and its subscales are presented in Table 1. The scale items are rated as “1= unimportant”, “2= slightly important”, “3= moderately important”, “4= very important”, “5= extremely important” by likert-type scaling method. Accordingly, patients are asked to choose the option that best describes their information needs and priorities before being sent home prior to discharge. The scale is rated based on total scores of each sub-dimension and the scale. The highest and lowest scores to be obtained from the scale are 250 and 50, respectively. Scale and subscale scores are calculated by dividing the total scale and the number of questions of all subscales according to the level of significance between 1 and 5 as “1= unimportant”, “2= slightly important”, “3= moderately important”, “4= very important”, “5= extremely important” (Bubela et al., 1990; Çatal & Dicle, 2008). In this study, Cronbach's alpha value of the scale was found to be 0.96.

Table 1. Number of items and item scores of the PLNS and its subscales

Scale	Number of Items	Item Numbers	Min- Max	Alpha (α)
Medications	8	3,8,16,18,37,39,44,45	8-40	0.85
Activities of Living	9	2,5,14,17,27,28,29,30,48	9-45	0.83
Community and Follow-up	6	6,9,22,31,36,41	6-30	0.77
Feelings related to Condition	5	7,24,32,35,42	5-25	0.77
Treatment and Complications	9	1,4,10,19,20,23,26,38,47	9-45	0.86
Quality of Life	8	11,13,15,21,34,40,46,50	8-40	0.84
Skincare	5	12,25,33,43,49	5-25	0.73
Total	50		50-250	0.96

Ethical approval

Munzur University ethical committee approval was obtained to carry out the study (1-4-2018). Written permissions were obtained from Malatya Inonu University Turgut Özal Medical Center and the patients.

Statistical analyses

The data were evaluated in the SPSS 17 package program. Descriptive statistics and Student-t test, one-way analysis of variance, Kruskal Wallis test, Mann Whitney U test were

used. Total Cronbach's alpha values of the PLNS and its sub-dimensions were calculated for the sample group.

RESULTS

While 31% of the patients in the study were in the 18-40 age range, 36% of them were in the 41-56 age range and 33% of them were in the 57-76 age range. While 63.0% of the patients were male, 72% of them were married and 45% of them were primary school graduates. It was determined that 84.0% of the patients were unemployed. When the medical diagnoses of the patients were examined, it was found that 28% of them had acute myeloid leukemia, 25% of them had multiple myeloma, and 15% of them had acute lymphocytic leukemia. 61.0% of patients did not have any additional chronic disease. 53.0% and 47.0% of the patients underwent autologous stem cell transplantation and allogeneic stem cell transplantation, respectively. The lengths of stay of 38% and 33.0% of the patients were 21-40 days and 14-20 days, respectively (Table 2).

Table 2. Some characteristics of patients

	Number (n)	Percentage (%)
Age		
18-40 years	31	31.0
41-56 years	36	36.0
57-76 years	33	33.0
Gender		
Female	37	37.0
Male	63	63.0
Marital status		
Single	28	28.0
Married	72	72.0
Educational level		
Primary school	45	45.0
Secondary school	26	26.0
High school	16	16.0
University	13	13.0
Employment Status		
Employed	16	16.0
Unemployed	84	84.0

Medical Diagnosis		
Acute lymphocytic leukemia	15	15.0
Acute myeloid leukemia	28	28.0
Non-Hodgkin lymphoma	11	11.0
Multiple myeloma	25	25.0
Chronic myeloid leukemia	2	2.0
Hodgkin Disease	2	2.0
Aplastic Anemia	6	6.0
Thalassemia	2	2.0
Other	9	9.0
Chronic Disease History		
Yes	39	39.0
No	61	61.0
Type of Transplantation		
Autologous	53	53.0
Allogeneic	47	47.0
Length of stay		
14-20 days	33	33.0
21-40 days	38	38.0
41 days and more (max.250 days)	29	29.0

In our study, the mean total score of the PLNS of the patients undergoing HSCT was found to be 213.07 ± 29.28 . The mean scores obtained from the subscales of the scale were medications 35.03 ± 5.01 , activities of living 37.98 ± 5.70 , community and follow-up 24.98 ± 4.21 , feelings related to condition 19.94 ± 3.90 , treatment and complications 39.62 ± 5.49 , quality of life 35.13 ± 4.69 and skincare 20.39 ± 3.77 , respectively. When the levels of significance of the patients from the sub-scales of the PLNS were examined, it was determined that they had the highest level of significance score in the subscales of treatment and complications (4.6) and medications (4.5) (Table 3).

Table 3. Mean scores of the patients from the patient learning needs scale and its subscales (n = 100)

Scale and its Subscales	Min.-Max.	mean±Sd	Level of Significance (median)
Medications	15-40	35.03±5.01	4.5
Activities of Living	24-45	37.98±5.70	4.2
Community and Follow-up	12-30	24.98±4.21	4.1
Feelings related to Condition	8-25	19.94±3.90	4.1
Treatment and Complications	23-45	39.62±5.49	4.6
Quality of Life	19-40	35.13±4.69	4.5
Skincare	5-25	20.39±3.77	4.2
Total	116-250	213.07±29.28	4.3

While no difference was found between the total PLNS and the mean scores of the subscales of activities of living, community and follow-up, feelings related to condition, quality of life and skincare according to age groups, a statistically significant difference were found

between the mean scores of the subscales of medications and treatment and complications ($p<0.05$). The mean score of patients between the ages of 18-40 was higher compared to other age groups.

Total PLNS and subscale mean scores did not vary by gender ($p>0.05$). A statistically significant difference was found between the total PLNS and the mean scores of the subscales of medications, activities of living, treatment and complications, and Skincare according to marital status ($p<0.05$). The total PLNS and the mean scores of medications, activities of living, treatment and complications, skincare were statistically significantly higher compared to married patients.

No statistically significant difference was found between the total PLNS and the mean scores of the subscales according to the educational level of the patients ($p>0.05$). Total PLNS and its subscales did not vary according to the presence of chronic disease accompanying the existing disease ($p>0.05$). Total PLNS and subscale mean scores did not vary according to the employment status, type of transplantation and length of stay of the patients ($p>0.05$) (Table 4).

Table 4. Total PLNS and subscale mean scores according to some characteristics of patients

Variable	Medications	Activities of Living	Community and Follow-up	Feelings related to Condition	Treatment and Complications	Quality of Life	Skincare	Total
Age								
18-40 years	36.90±4.74	39.93±5.85	25.51±4.76	20.16±4.76	41.83±4.66	36.41±4.58	20.93±4.50	221.70±30.48
41-56 years	34.08±5.12	37.30±5.88	25.11±3.55	20.25±3.27	38.75±5.51	35.05±4.45	20.52±3.72	211.80±27.67
57-76 years	33.51±5.01	36.87±5.00	24.33±4.37	19.39±3.90	38.48±5.72	34.00±4.88	19.72±3.01	206.33±28.67
	F=3.93	F=2.78	F=0.65	F=0.48	F=3.90	F=2.17	F=0.85	F=2.31
	p=0.023	p=0.066	p=0.523	p=0.620	p=0.023	p=0.119	p=0.428	p=0.104
Gender								
Female	35.08±4.90	38.24±5.05	24.97±3.86	19.62±4.03	39.56±5.25	34.62±4.48	20.27±4.23	212.37±28.82
Male	35.00±5.11	37.82±6.08	24.98±4.43	20.12±3.84	39.65±5.66	35.42±4.82	20.46±3.50	213.47±29.76
	t=0.07	t=0.35	t=-0.01	t=-0.62	t=-0.07	t=-0.82	t=-0.24	t=-0.18
	p=0.938	p=0.725	p=0.990	p=0.535	p=0.942	p=0.410	p=0.809	p=0.857
Marital status								
Single	36.42±5.58	39.57±5.89	25.71±4.36	20.57±3.91	41.78±3.73	36.50±3.74	21.57±3.57	222.14±26.63
Married	34.48±4.59	37.36±5.54	24.69±4.15	19.69±3.90	38.77±5.84	34.59±4.93	19.93±3.76	209.54±29.67
	U=669.0	U=741.0	U=828.5	U=857.0	U=687.0	U=783.5	U=730.0	U=724.0
	p=0.009	p=0.040	p=0.166	p=0.244	p=0.013	p=0.082	p=0.032	p=0.029
Educational level								
Primary school	33.84±5.58	37.40±5.70	25.02±4.12	19.88±3.56	38.55±5.88	34.40±4.78	20.51±3.55	209.62±30.77
Secondary school	35.03±4.56	37.34±5.86	23.88±4.65	19.30±4.46	38.84±5.95	34.76±5.36	20.00±4.02	209.19±30.56
High school	36.06±4.68	39.06±6.25	26.38±2.69	20.25±4.65	41.25±4.12	36.00±4.30	20.75±4.43	218.87±29.57
University	37.84±2.54	39.92±4.51	24.98±4.21	21.00±2.94	42.84±2.47	37.30±2.52	20.30±3.44	225.61±16.42
	KW=7.65	KW=2.58	KW=2.84	KW=1.42	KW=7.33	KW=3.86	KW=0.83	KW=4.03
	p=0.054	p=0.460	p=0.417	p=0.700	p=0.062	p=0.277	p=0.841	p=0.258
Chronic Disease History								
Yes	33.87±5.23	37.02±5.57	24.25±4.19	19.61±3.61	38.56±5.49	34.56±4.61	20.12±3.38	208.02±28.58
No	35.77±4.75	38.59±5.74	25.44±4.19	20.14±4.10	40.29±5.42	35.49±4.74	20.55±4.01	216.29±29.49
	t=-1.87	t=-1.34	t=-1.37	t=-0.66	t=-1.54	t=-0.96	t=-0.55	t=-1.38
	p=0.064	p=0.182	p=0.171	p=0.509	p=0.125	p=0.338	p=0.581	p=0.170
Employment Status								
Employed	37.18±2.37	39.87±5.16	25.50±3.86	20.81±2.99	42.06±3.08	37.12±3.30	21.00±3.50	223.56±19.74
Unemployed	34.61±5.27	37.61±5.75	24.88±4.29	19.77±4.05	39.15±5.73	34.75±4.83	20.27±3.82	211.07±30.44
	U:511.50	U:534.00	U:636.00	U:592.00	U:507.00	U:484.50	U:588.00	U:531.50
	p=0.127	p=0.192	p=0.733	p=0.450	p=0.119	p=0.076	p=0.427	p=0.186

Type of Transplantation								
Autologous	34.56±5.18	37.50±5.67	24.33±4.21	19.71±3.68	39.26±5.61	34.83±4.90	19.90±3.42	210.13±28.93
Allogeneic	35.55±4.80	38.51±5.74	25.70±4.13	20.19±4.17	40.02±5.38	35.46±4.47	20.93±4.09	216.38±29.62
	t=-0.98	t=-0.87	t=-1.62	t=-0.60	t=-0.68	t=-0.67	t=-1.37	t=-1.06
	p=0.328	p=0.383	p=0.107	p=0.547	p=0.494	p=0.501	p=0.174	p=0.289
Length of stay								
14-20 days	34.15±4.34	36.27±5.34	23.75±4.44	19.12±4.25	38.30±5.79	34.00±4.68	19.81±3.69	205.42±28.30
21-40 days	35.23±4.59	38.73±5.45	25.52±3.83	20.76±3.20	40.34±4.91	35.78±4.06	21.00±3.20	217.39±26.13
41 days and more (max.250 days)	35.75±6.13	38.93±6.15	25.65±4.25	19.79±4.23	40.17±5.76	35.55±5.36	20.24±4.49	216.10±33.31
	F=0.84	F=2.27	F=2.12	F=1.60	F=1.43	F=1.46	F=0.89	F=1.72
	p=0.433	p=0.108	p=0.125	p=0.206	p=0.243	p=0.237	p=0.411	p=0.185

DISCUSSION

This study was carried out to determine the learning needs of patients undergoing hematopoietic stem cell transplantation at the discharge stage. It is recommended to increase the number of studies aimed at determining patient needs in the literature (Akkuzu et al., 2018). In our study, the mean total score of the PLNS of the patients undergoing HSCT was found to be 213.07 ± 29.28 . When the levels of significance of the patients from the sub-scales of the PLNS were examined, it was determined that they had the highest level of significance score in the subscales of treatment and complications (4.6) and medications (4.5) (Table 3). In the studies carried out using the PLNS in different patient groups, the mean total score of the scale was found to be between 165.95 ± 45.44 and 207.52 ± 24.14 (Çetinkaya & Duru Aşiret, 2017; Demirkıran & Uzun, 2012; Dursun Başaran & Yılmaz, 2015; Güçlü & Kurşun, 2017; Özel & Karabacak, 2012; Tan et al., 2013; Uzun, Ucuzaal & İnan 2011). In our study, the total score of the patients from the scale was found to be higher than the mean score to be obtained from the scale (150), as in the other which reveals that patients need information about their care at home studies (Demirkıran & Uzun, 2012; Dursun Başaran & Yılmaz, 2015; Güçlü & Kurşun, 2017; Orgun & Şen, 2012; Polat, 2011; Polat, Celik, Erkan & Kasali, 2014; Tan et al., 2013; Uzun et al., 2011). Similarly, in other studies, the highest subscale score was determined as treatment and complications (Çetinkaya & Duru Aşiret, 2017; Dursun Başaran & Yılmaz, 2015; Fagermoen & Hamilton, 2006; Güçlü & Kurşun, 2017; Jacobs, 2000; Orgun & Şen, 2012; Polat, 2011; Şendir, Büyükyılmaz & Muşovi, 2013; Tan et al., 2013) and medications (Çetinkaya & Duru Aşiret, 2017; Dağ, Dönmez, Güleç, Öztürk, Eminov & Saruhan, 2014; Dursun Başaran & Yılmaz, 2015; Güçlü & Kurşun, 2017; Orgun & Şen, 2012; Yılmaz & Özkan, 2015). The results of the study were similar to the literature, and the patients were mostly in need of information on medical issues related to discharge (complications and medication), which suggests that they wanted to increase their knowledge on this subject since they would take the responsibility for their own treatment in the home environment after discharge. Accurate information obtained on treatment and care will reduce the complications that may occur due to treatment, and will accelerate recovery and improve the quality of life (Çetinkaya & Duru Aşiret, 2017).

While no difference was found between the total PLNS and the mean scores of the subscales of activities of living, community and follow-up, feelings related to condition, quality of life and skincare according to age groups, a statistically significant difference were found between the mean scores of the subscales of medications and treatment and

complications. The mean score of patients between the ages of 18-40 was higher compared to other age groups. In the study carried out by Yılmaz and Özkan 2015, no significant relationship was found between total PLNS score and age (Yılmaz & Özkan, 2015). On the other hand, in the study of Güçlü and Kurşun it was determined that the educational needs of the patients between the ages of 18-39 were high and that there was a statistically significant difference (Güçlü & Kurşun, 2017). In the study of Tan et al., it was determined that the younger age groups had higher educational needs compared to other age groups (Tan et al., 2013). The fact that individuals in the 18-40 age range were less likely to experience disease compared to older age groups, were an active group in society by age and had increased responsibilities suggested that they would have higher needs for learning about discharge (Çetinkaya & Duru Aşiret, 2017; Güçlü & Kurşun, 2017).

Total PLNS and subscale mean scores did not vary by gender. The study of Güçlü and Kurşun supported our results. A statistically significant difference was found between the total PLNS and the mean scores of the subscales of medications, activities of living, treatment and complications, and skincare according to marital status. The total PLNS and the mean scores of medications, activities of living, treatment and complications, skincare were statistically significantly higher compared to married patients (Güçlü & Kurşun, 2017). In the study carried out by Tan et al., the mean scores of the subscales of medications, community and follow-up and quality of life of single patients were found to be higher compared to married patients (Tan et al., 2013). In the study of Güçlü and Kurşun it was determined that marital status had an effect on learning needs. In the study of Taşdemir et al., it was determined that marital status had no effect on learning needs (Taşdemir, Güloğlu, Turan, Çatatepe & Özbayır, 2010).

No statistically significant difference was found between the total PLNS and the mean scores of the subscales according to the educational level of the patients, which is similar to the results of Yılmaz and Özkan (Yılmaz & Özkan, 2015). However, it was observed that educational needs increased as the educational level increased. In the study of Tan et al. (2013), it was reported that the learning needs of patients increased as the educational level increased (Tan et al., 2013). The results of our study are similar to the results of two studies (Tan et al., 2013; Yılmaz & Özkan, 2015). Unlike our results, in the study carried out by Güçlü and Kurşun the need for discharge education of university graduates was found to be higher and there was a statistical difference (Güçlü & Kurşun, 2017). Furthermore, in the study of Çetinkaya and Duru Aşiret, a statistically significant difference was found between

the educational status of the patients and the subscales of the PLNS of feelings related to condition and skincare, however, there was no difference between the PLNS score (Çetinkaya & Duru Aşiret, 2017). It is considered that this result was due to the fact that the patients with high educational levels had higher awareness and expectations compared to individuals with low educational level.

Total PLNS and its subscales did not vary according to the presence of chronic disease accompanying the existing disease. Total PLNS and subscale mean scores did not vary according to the employment status, type of transplantation and length of stay of the patients (Table 4). In the study of Güçlü and Kurşun no difference was found between the presence of chronic disease, urgency of surgical intervention, length of stay in the hospital, and discharge education, that were the health characteristics of patients, and total PLNS score (Güçlü & Kurşun, 2017). In the study of Çetinkaya and Duru Aşiret., it was determined that the learning needs of the individuals with chronic disease were not significant compared to the individuals without chronic disease, however, the mean total score of the PLNS was higher (Çetinkaya & Duru Aşiret, 2017). Unlike our results, in the study of Orgun and Şen, it was found that the need for learning increased as the length of stay of the patients staying in the surgical clinic increased (Orgun & Şen, 2012).

CONCLUSION

As the result of the study, it was concluded that the information needs of the patients were high and that they had the highest information needs in the subscales of medications and treatment and complications. In our study, it was observed that there was no statistically significant difference between the demographic characteristics of individuals except marital status and the mean total score of the PLNS. In line with these results; it is recommended that a professional discharge education program should be prepared while informing the patient, what patients want to be informed about in the nursing process should be analyzed while planning the patient education, the socio-demographic variables should be considered while evaluating the learning needs of patients, evaluating the learning needs of family members because family members care for cancer patients. The study should be carried out with a larger sample group.

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