Original Article

The Discharge Related Education Needs of Inpatients Being Treated in the Internal Diseases Clinic and Affecting Factors

Feride Taskin Yilmaz, PhD
Assistant Professor, Department of Internal Diseases Nursing, Cumhuriyet University, School of Susehri Health High, Sivas, Turkey

Kadriye Aldemir, MSc
Lecturer, Cumhuriyet University, School of Susehri Health High, Sivas, Turkey

Ezgi Yildiz, MSc
Research Assistant,Cumhuriyet University, School of Susehri Health High, Sivas, Turkey

Correspondence: Feride Taskin Yilmaz, Assistant Professor, PhD, Cumhuriyet University School of Susehri Health High, Department of Internal Diseases Nursing, Sivas, 58140 Turkey, e-mail: feride_taskin@hotmail.com

Abstract

Objective: This study was conducted to determine education needs and setting priorities at discharge of patients hospitalized in internal diseases clinic.

Method: Participants of this descriptive research were 139 patients who were hospitalized in internal diseases clinic in a university hospital between the dates of 01 June- 01 July 2018, were planned to be discharged in 24-48 hours and accepted to participate in the study. Data was collected with patient identification form and Patient Education Needs Scale. In data evaluation, percentage, average, student t test, one way ANOVA and Kruskal Wallis test were used.

Results: Age average of the patients was 60.73±15.94 years, 30.9% of them were illiterate and nearly all of the patients (93.5%) had chronic diseases. It was determined that the highest significance levels in the scale were medication, treatment and complications and quality of life sub dimensions and the lowest significance level was sub-dimension of emotions regarding the situation. It was found that there was a significant relationship between gender and the medication, life activities, and society and monitoring sub dimensions of the PENS, where the education needs of male patients were greater in these sub dimensions (p<0.05). The PENS total mean score of patients with joint-connective tissue diseases and endocrine system diseases was found to be higher on a statistically significant level (p<0.05).

Conclusion: It was determined that education needs of the patients were high, requirements regarding medicines, treatment, complications and life quality were more important, education needs of the patients were related with the gender and disease diagnosis.

Key Words: Internal diseases, discharge, education needs, nursing.

Introduction

A high quality health education speeds up the healing process of the patients, improves their self-care skills, and decreases repeated admissions into the hospital or emergency room (Demirkiran & Uzun, 2012). Especially informing individuals with chronic diseases on adaptation to their new lifestyle, self-care, treatment, and the problems they may encounter at home is very important and necessary for disease management. The trainings to be provided to those individuals should be systematically planned from the admission of the patient until his/her discharge (Kerzman, Baron-Epel, & Toren, 2005; Maloney & Weiss, 2008).

Although all of the members of the health team are responsible for the education of the patients and their families, discharge planning is basically under the responsibility of the nurse (Yalcin et al., 2015). Patient education, which falls under the educational role of a professional nurse, aims to protect the ill individual from complications, ensure that the patient gains self-sufficiency in his/her life, to help the patient cope with the

disease and adapt to it, to improve the ability of patients to make decisions regarding health care, and to enact behavioral changes that will improve and maintain health (Kaya, 2009). In order to reach these goals in patient education, it is important with regard to the quality of the education to first know what the patients want to learn and know on which subject. Thus, patients can be informed not on subjects that the nurses want to talk to the patients about but on the subjects that the patients want to learn about, according to the needs of the patients (Kizil, 2008; Tan, Ozdelikara, & Polat, 2013). Additionally, patient education given through determining individual needs and planning can contribute to patients appropriately participating in their own health care decisions and improvements in health behavior (Huber & Blanco, 2010).

Internal diseases clinics are units where mostly individuals with chronic diseases are treated. We think that determining the education needs of patients being treated in these clinics and applying patient education appropriately would positively affect disease management. In this context, this study was performed in order to determine the discharge related education needs and priorities of inpatients being treated in the internal diseases clinic and affecting factors.

Methods

Study Design and Sample: It is a descriptive research. The universe of this study consisted of the inpatients being treated in the internal diseases clinics of a university hospital (chest diseases, cardiology, endocrinology, general internal diseases, gastroenterology) between the dates of June 1st and July 15th 2018 who were 18 years of age and above and whose discharge was being planned in the next 24 to 48 hours. Without sample selection, the whole of the universe was aimed to be reached within the determined time interval. In this context, 139 patients who could independently answer questions, who had no diseases that could affect decision making ability (dementia, psychological problems etc.), and who agreed to participate in the study were included in the sample of the study.

Data Collection Tools

Data was collected using a "Patient Information Form" and the "Patient Education Needs Scale".

The Patient Information Form: In this form, which was prepared by the researchers according to literature, a total of 8 questions regarding age, gender, marital status, education level, medical diagnosis, number of chronic diseases, employment status, and presence of continuously used medication were included.

The Patient Education Needs Scale (PENS): This scale was developed by Bubela et al (1990), and tested for validity and reliability in Turkish by Catal and Dicle (2008). The scale consists of 50 items and 7 sub dimensions (medication, life activities, society and monitoring, emotions regarding the situation, treatment and complications, quality of life, skin care). The items in the scale are interpreted in a likert type scoring with the answers "1=not important", "2=somewhat important", "3=moderate importance", "4=very important", and "5=of utmost importance". The evaluation of scale scores are performed over total scale scores and the scores of each sub dimension. The scores that can be attained from the scale vary between 50 and 250. Higher scores indicate the importance level of education needs (Catal & Dicle, 2008). In our study, the cronbach alpha coefficient of the scale was found to be 0.96.

Data Collection: The data were collected by face-to-face interviews in the last 24-48 hours before discharge, in a room where the researchers could discuss comfortably with the patients. Filling up the data forms lasted approximately 25-30 minutes.

Ethical Approval: Before collecting data, a written permission is received from the ethical committee of a university (Decision no: 2018-05/05). Moreover, each attendant joining the study is informed about the content and voluntary participation and their verbal consent is taken.

Data Analysis: Data was interpreted using the SPSS 22.0 package program. In the evaluation of the personal and disease related characteristics of the patients, mean values, standard deviation, and percentage distributions were used. In the examination of the relationship between the personal and disease related characteristics of the patients and their PENS scores, the student t test, one way ANOVA, the Mann Whitney U test, and the Kruskal Wallis Test were used. In statistical evaluations, the level for significance was taken as p<0.05.

Results

The mean age of the patients was 60.73±15.94, and almost half consisted of elderly patients (45.3%). 57.6% of the participants were female, 30.9% were illiterate, 75.5% were married, and 74.1% were unemployed. 25.2% of the participants were admitted to the hospital for respiratory system diseases, 23% were admitted for gastrointestinal system diseases, 18% were admitted for cardiovascular system diseases, and 16.5% were admitted for endocrine system diseases. It was found that almost all (93.5%) of the patients had a chronic disease, that 56.9% had more than one chronic disease, and that 93.5% had a continuous drug treatment.

It was determined that the highest significance levels in the scale were medication, treatment and complications and quality of life sub dimensions and the lowest significance level was sub-dimension of emotions regarding the situation.

The PENS total mean score of the patients was 179.16±34.46. The mean PENS sub dimension scores of the patients were found to be respectively medication 30.97±6.22, life activities 31.53±6.64, society and monitoring 20.67±4.33, emotions regarding the situation 16.72±4.54, treatment and complications 33.05±6.55, quality of life 29.38±6.02, and skin care 16.80±4.32. When the sub dimensions of the scale were ordered according to level of importance, the highest priorities were found to be in the sub dimensions of medication (3.87±0.77), treatment and complications (3.67±0.72), and quality of life (3.67±0.75), while the lowest priority was found to be in the sub dimension of emotions regarding the situation (3.34±0.90) (Table 1).

The comparison between the personal characteristics of the patients and their Patient Education Needs Scale general and sub dimension mean scores was given in Table 2. Accordingly, no statistically significant difference between age, education level, marital status, and employment status and PENS total mean scores could be found (p>0.05). Alongside this, it was found that there was a significant relationship between gender and the medication, life activities, and society and monitoring sub dimensions of the PENS, where the education needs of male patients were greater in these sub dimensions (p<0.05).

The comparison between the disease related characteristics of the patients and their Patient Education Needs Scale general and sub dimension mean scores was given in Table 3. Accordingly, although the mean score attained by the patients with chronic diseases from the PENS was higher, no statistically significant difference in PENS total mean scores could be found according to the presence of chronic diseases or the number of chronic diseases present (p>0.05). Alongside this, the PENS total mean score of patients with joint-connective tissue diseases and endocrine system diseases was found to be higher on a statistically significant level (p<0.05).

Table 1. Distribution of Patient Average Scores of the Patient Education Needs Scale

Sub dimensions	Range of obtainable scores (min-max)	Range of scores obtained (min-max)	M±SD	Materiality level
Medication	8-40	8-40	30.97±6.22	**3.87±0.77**
Life activities	9-45	9-43	31.53±6.64	3.50±0.73
Society and monitoring	6-30	9-30	20.67±4.33	3.44±0.72
Emotions regarding the situation	5-25	5-25	16.72±4.54	3.34±0.90
Treatment and complications	9-45	10-45	33.05±6.55	**3.67±0.72**
Quality of life	8-40	8-40	29.38±6.02	**3.67±0.75**
Skin care	5-25	5-25	16.80±4.32	3.36±0.86
Total	50-250	55-243	179.16±34.46	3.55±0.69

Table 2. The Comparison of the Patient's Personal Characteristics and the General and Sub Dimension Mean Scores of the Patient Education Needs Scale

Characteristics	n(%)	Total	Medication	Life activities	Society and monitoring	Emotions regarding the situation	Treatment and complications	Quality of life	Skin care
		M±SD	M±SD	M±SD	M±SD	M±SD	M±SD	M±SD	M±SD
Age groups									
54 years and under	40(28.8)	181.80±34.29	31.87±6.30	31.90±6.06	21.05±4.35	16.92±4.67	33.00±6.40	30.20±6.13	16.85±4.97
55-64 years	36(25.9)	176.47±40.88	30.08±7.60	30.52±8.26	20.27±4.55	16.75±4.38	32.72±8.05	29.33±6.89	16.77±4.36
65 years and over	63(45.3)	179.02±30.84	30.90±5.26	31.88±5.97	20.66±4.24	16.58±4.62	33.28±5.76	28.88±5.44	16.79±3.90
Test, Significance		F=0.225; p=0.799	F=0.788; p=0.457	F=0.560; p=0.799	F=0.298; p=0.743	F=0.067; p=0.935	F=0.086; p=0.918	F=0.577; p=0.563	F=0.003; p=0.997
Gender									
Female	80(57.6)	174.31±36.93	30.02±6.67	30.55±7.22	20.03±4.47	16.25±4.45	32.15±7.06	28.63±6.46	16.66±4.33
Male	59(42.4)	185.73±29.86	32.25±5.36	32.88±5.54	21.54±4.01	17.37±4.63	34.28±5.62	30.38±5.25	17.00±4.34
Test, Significance		t=-1.950; p=0.053	t=-2.112; **p<0.05**	t=-2.069; **p<0.05**	t=-2.046; **p<0.05**	t=-1.444; p=0.151	t=-1.918; p=0.057	t=-1.706; p=0.090	t=-0.453; p=0.651
Education level									
Not literate	43(30.9)	182.98±32.39	31.34±5.57	31.93±6.86	21.04±4.33	17.20±4.33	33.95±6.05	30.13±5.62	17.34±3.90
Primary	67(48.2)	175.24±37.28	30.59±6.71	31.10±6.99	20.16±4.53	16.23±4.88	32.34±7.07	28.43±6.52	16.35±4.42
Secondary	29(20.9)	182.55±30.51	31.27±6.13	31.96±5.52	21.31±3.84	17.13±4.05	33.37±6.06	30.44±5.18	17.03±4.70
Test, Significance		KW=0.940; p=0.625	KW=0.197 p=0.906	KW=0.126 p=0.939	KW=1.347 p=0.510	KW=1.126 p=0.569	KW=1.245 p=0.537	KW=2.748 p=0.253	KW=1.180 p=0.554
Marital status									
Married	105(75.5)	178.69±34.08	30.83±6.09	31.31±6.72	20.54±4.19	16.66±4.55	33.19±6.62	29.33±5.94	16.80±4.17
Single	34(24.5)	180.62±36.08	31.38±6.71	32.23±6.44	21.08±4.80	16.91±4.58	32.64±6.41	29.52±6.35	16.82±4.83
Test, Significance		t=-0.283; p=0.777	t=-0.442; p=0.660	t=-0.701; p=0.484	t=-0.636; p=0.526	t=-0.272; p=0.786	t=0.419; p=0.676	t=-0.164; p=0.870	t=-0.027; p=0.978
Employment status									
Yes	36(25.9)	184.19±31.02	32.55±5.57	32.36±5.57	21.36±4.39	16.86±5.19	33.88±5.97	29.86±5.76	17.30±4.21
No	103(74.1)	177.40±35.55	30.41±6.37	31.25±6.98	20.43±4.31	16.67±4.32	32.76±6.75	29.21±6.13	16.63±4.37
Test, Significance		t=1.019; p=0.310	t=1.787; p=0.076	t=0.861; p=0.391	t=1.102; p=0.272	t=0.205; p=0.838	t=0.883; p=0.379	t=0.554; p=0.581	t=0.804; p=0.423

Table 3. The comparison between the disease related characteristics of the patients and the General and Sub Dimension Mean Scores of the Patient Education Needs Scale

Characteristics	n(%)	Total	Medication	Life activities	Society and monitoring	Emotions regarding the situation	Treatment and complications	Quality of life	Skin care
		M±SD	M±SD	M±SD	M±SD	M±SD	M±SD	M±SD	M±SD
Disease group causing hospitalization									
Cardiovascular system disease	25(18.0)	161.60±46.94	27.52±8.53	29.00±9.05	19.68±5.15	14.48±5.14	29.48±9.20	26.76±7.60	14.68±5.11
Respiratory system disease	35(25.2)	179.60±29.79	32.02±5.21	31.11±6.46	20.94±3.75	16.88±4.84	33.51±5.80	28.40±5.66	16.71±4.15
Neurological system disease	10(7.2)	163.20±34.69	27.80±6.59	27.60±7.15	18.90±4.62	15.70±5.16	30.70±5.33	26.90±6.67	15.60±3.94
Gastrointestinal system disease	32(23.0)	183.78±32.68	30.93±5.72	33.03±5.89	20.50±4.65	17.65±3.71	33.50±6.08	30.34±5.31	17.81±4.01
Endocrine system disease	23(16.5)	189.74±26.59	33.52±4.59	33.56±4.35	21.13±4.08	17.30±4.08	35.34±4.89	31.30±4.98	17.56±3.94
Rheumatic disease	14(10.1)	192.86±19.92	32.64±3.77	33.21±4.07	22.71±3.07	18.00±3.84	35.21±4.40	32.92±3.40	18.14±3.79
Test, Significance		KW=12.395 **p<0.05**	KW=13.68 **p<0.05**	KW=7.692 p=0.174	KW=6.084 p=0.298	KW=7.098 p=0.213	KW=10.246 p=0.068	KW=13.61 **p<0.05**	KW=9.448 p=0.092
Presence of chronic diseases									
Yes	130(93.5)	178.94±35.13	30.96±6.38	31.43±6.72	20.68±4.38	16.76±4.56	33.00±6.68	29.31±6.17	16.76±4.42
No	9(6.5)	182.33±23.87	31.11±3.37	33.13±5.37	20.55±3.84	16.11±4.45	33.77±4.52	30.33±3.35	17.33±2.59
Test, Significance		Z=-0.064 p=0.949	Z=-0.395 p=0.693	Z=-0.519 p=0.604	Z=-0.103 p=0.918	Z=-0.524 p=0.600	Z=-0.124 p=0.901	Z=-0.180 p=0.857	Z=-0.086 p=0.932
Number of chronic diseases *									
One	51(36.7)	186.02±25.80	32.15±4.83	32.66±4.58	21.23±4.11	17.49±3.89	34.33±5.03	30.80±4.60	17.33±3.85
Two	46(33.1)	175.70±34.32	31.00±5.89	30.97±6.94	20.45±4.35	16.21±4.99	32.56±6.50	28.17±6.23	16.30±4.73
Three and over	33(23.7)	169.48±44.24	28.48±8.16	29.93±8.71	19.78±4.59	15.90±4.72	31.12±8.46	28.06±7.37	16.18±4.57
Test, Significance		KW=4.161 p=0.245	KW=4.639 p=0.200	KW=2.102 p=0.552	KW=3.025 p=0.388	KW=3.994 p=0.262	KW=3.371 p=0.338	KW=6.155 p=0.104	KW=2.796 p=0.424

*n=130

Discussion

In this study examining the discharge related education needs of patients being treated in internal diseases clinics and affecting factors, the total mean PENS score of the patients was found to be 179.16±34.46, indicating a high level of educational need. The mean PENS score obtained in the study was lower compared to studies performed by Tan, Ozdelikara, and Polat (2013) with patients being discharged from the internal diseases clinic (204.26±23.85), Cetinkaya and Asiret (2017) with patients whose discharge from internal diseases and surgery clinics were being planned (186.67±29.22), Guclu and Kurcun (2017) with inpatients in the general surgery clinic (191.44±34.26), and Basaran and Yilmaz (2015) with patients who underwent abdominal surgery (207.52±24.14). Despite this, the value obtained in this study is higher compared to the study performed by Polat et al. (2014) with inpatients in all clinics (165.95±45.44). The findings of this study thus show that patient education needs are not sufficiently met by health professionals during treatment and care or discharge.

In the study, the highest priority in educational needs was found to be on medication, treatment and complications, and quality of life. Similar findings have been reached in other studies as well (Tasdemir et al., 2010; Tan, Ozdelikara, & Polat, 2013; Dag et al., 2014; Polat et al., 2014; Basaran & Yılmaz, 2015; Cetinkaya & Asiret, 2017; Guclu & Kursun, 2017). Alongside this, the patients were found to desire to learn most about life activities, skin care, quality of life, and treatment and complications in a study by Demirkiran and Uzun (2012), while quality of life, treatment and complications, and medications came foremost among the subjects that the patients wanted to learn about most in a study by Orgun and Sen (2012). In a few studies conducted abroad, the highest educational needs were similarly found to be in the subjects of treatment and complications, medication, and quality of life (Jacobs, 2000; Johansson, Hupli, & Salantera, 2002). The findings of our study are parallel to the literature, and the patients were found to desire to be informed on medical subjects such as medications, treatment and complications most.

In the study, no significant difference between the education needs of the patients according to age, education level, marital status, or employment status was found. In the literature, differing results on the relationship between patient education needs and age, education level, and marital status have been reported. In certain studies, no relationship between the education needs of patients and age (Tasdemir et al., 2010; Uzun, Ucuzal, & Inan, 2011; Yalcin et al, 2015; Yilmaz & Ozkan, 2015; Cetinkaya & Asiret, 2017); education level (Yilmaz & Ozkan, 2015; Cetinkaya & Asiret, 2017; Guclu & Kursun, 2017), or marital status (Tasdemir et al., 2010; Sendir, Büyükyılmaz, & Musovi, 2013; Guclu & Kursun, 2017) was reported in a manner similar to our findings. On the other hand, individuals in the younger age group were found to need more information than the individuals in other age groups in a study by Suhonen et al (2005), and the information needs of individuals in the 62 or above age group were found to be higher compared to the information needs of individuals in other age groups in a study by Tan, Ozdelikara and Polat (2013). Additionally, while some studies have reported that individuals needed more information as education level decreased (Hu et al., 2006; Ozel, 2010; Demirkiran & Uzun, 2012; Yalcin et al., 2015), others have shown that informational needs increased with higher education levels (Tan, Ozdelikara, & Polat, 2013; Guclu & Kursun, 2017). Again, from a socio demographic perspective, the educational needs of married patients were found to be higher compared to single patients in a study by Çetinkaya and Asiret (2017), while single patients were found to have greater educational needs in studies by Ilk (2010). Additionally, employed patients were found to need more information compared to unemployed patients in a study by Alkubati et al. (2012). The fact that differing results have been reported in the literature regarding the relationship between socio demographic variables and educational needs shows that patient education needs can be affected by personal factors and requirements.

While no relationship between gender and PENS total mean scores could be found in this study, male patients were found to have greater educational needs in the medication, life activities, and society and monitoring sub dimensions. Although the findings of several studies have reported gender to not affect educational needs (Basaran & Yilmaz, 2015; Guclu & Kursun, 2017), the studies by Uzun,

Ucuzal and Inan (2011) and Tan, Ozdelikara and Polat (2013) have reported the educational needs of female patients to be greater than male patients. In this context, discharge trainings should be planned by taking into account that there may be differences based on gender specific needs.

Another interesting finding of our study is the higher educational needs found in individuals with joint-connective tissue and endocrine system diseases compared to individuals with other types of diseases. This finding may have stemmed from the fact that patients with these diseases being obligated to have information on many specific subjects including medicine use (insulin, corticosteroids, etc.) diet, exercise, and skin care.

Conclusion

According to our findings, the discharge related information needs of patients being treated in internal diseases clinics were found to be higher with a priority on needs regarding medication, treatment and complications, and quality of life. The educational needs of the patients were found to be related to diagnosis. In this context it is suggested that the education needs of patients should be determined by all health professionals, and especially nurses, until the discharge phase, that planned patient trainings should be performed, that education needs should be reevaluated during discharge to remove insufficiencies, and that higher priority should be given to the subjects where patient need is most pronounced such as medication use and unwanted conditions that may develop because of the disease or treatment. Additionally, it should not be forgotten that in cases of diseases that affect the lives of the patients from several aspects the need for information will be greater. Thus it is recommended to continue trainings with specific intervals after discharge and to evaluate such trainings through feedback.

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