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Investigation of the Readiness for Discharge and Learning Needs of Patients Undergoing Surgery

Ameliyat Olan Hastaların Taburculuğa Hazır Olma Durumları ve Öğrenim Gereksinimlerinin İncelenmesi

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ABSTRACT

Objective: This study aimed to assess the discharge readiness and learning needs of surgical patients and to examine the relationship between these variables.

Methods: This descriptive, cross-sectional study was conducted with 116 patients who underwent surgery in the general surgery clinic of a university hospital between April and December 2023. Data were collected using the Patient Introduction Form, the Patient Learning Needs Scale (PLNS), and the Readiness for Hospital Discharge Scale (RHDS). Statistical analyses were performed using descriptive statistics, independent sample t-test, Mann-Whitney U test, and Kruskal-Wallis test. Ethical approval was obtained from the Medical Research Ethics Committee of the university hospital, and written consent was obtained from all participants prior to the study.

Results: The mean total score of the PLNS was 225.38±29.42, and the mean score of the patients' satisfaction was 188.85±52.56. The mean total RHDS score was 7.50 ± 1.70. A statistically significant moderate positive correlation was found between the two scales (r: 0.447, p<0.001). Statistically significant differences were found between the RHDS scores according to gender, status of receiving discharge education and finding discharge education adequate (p<0.05). Male patients, those who received discharge education, and those who perceived the discharge education as adequate had significantly higher RHDS scores.

Conclusion: The study found that patients had high learning needs, which were mostly met, while their readiness for discharge was at a moderate level. As their learning needs were addressed, their readiness for discharge improved. These results highlight the importance of personalized education in enhancing patients' confidence and preparedness for discharge. The findings indicate that discharge education tailored to individual learning needs is associated with higher levels of discharge readiness. It is recommended that planned discharge education be provided to surgical patients in clinical settings, considering their individual characteristics, and that its effectiveness be evaluated.

ÖZ

Amaç: Bu çalışmada ameliyat olan hastaların taburculuğa hazır olma durumları ve öğrenim gereksinimlerinin incelenmesi amaçlanmıştır.

Yöntem: Bu tanımlayıcı ve kesitsel çalışma, bir üniversite hastanesinin genel cerrahi kliniğinde Nisan-Aralık 2023 tarihleri arasında ameliyat geçiren 116 hasta ile yürütüldü. Veriler; Hasta Tanıtım Formu, Hasta Öğrenim Gereksinimleri Ölçeği (HÖGÖ) ve Hastane Taburculuğuna Hazır Oluşluk Ölçeği (HTHOÖ) kullanılarak toplandı. İstatistiksel analizlerde tanımlayıcı istatistikler, bağımsız örneklem t-testi, Mann-Whitney U testi ve Kruskal-Wallis testi kullanıldı. Araştırma için üniversite hastanesinin Tıbbi Araştırmalar Etik Kurulu'ndan onay alındı, çalışmaya katılan tüm hastalardan yazılı onam alındı.

Bulgular: Hastaların HÖGÖ toplam puan ortalaması 225.38±29.42, memnuniyet puanı ortalaması ise 188.85±52.56 olarak saptandı. HTHOÖ toplam puan ortalaması 7.50±1.70 olarak bulundu. İki ölçek arasında anlamlı orta düzeyde pozitif bir korelasyon belirlendi (r=0.447, p<0.001). Cinsiyet, taburculuk eğitimi alma durumu ve taburculuk eğitimi yeterli bulma durumuna göre HTHOÖ puanlarında istatistiksel olarak anlamlı fark bulundu (p<0.05). Erkek hastalar, taburculuk eğitimi alanlar ve taburculuk eğitimi yeterli bulan hastaların HTHOÖ puanları anlamlı derecede daha yüksekti.

Sonuç: Çalışmada, hastaların öğrenim gereksinimlerinin yüksek olduğu ancak büyük ölçüde karşılandığı, taburculuğa hazır olma düzeyleri ise orta seviyede bulunduğu belirlendi. Hastaların öğrenim gereksinimleri karşılandıkça, taburculuğa hazır olma düzeylerinin arttığı görüldü. Bulgular bireysel öğrenme ihtiyaçlarına göre uyarlanmış taburculuk eğitiminin, taburculuğa hazırlık düzeyinin daha yüksek olmasıyla ilişkili olduğunu göstermektedir. Cerrahi hastalara klinik ortamlarda, bireysel özellikleri göz önünde bulundurularak planlı taburculuk eğitimi verilmesi ve bu eğitimin etkinliğinin değerlendirilmesi önerilmektedir.

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INTRODUCTION

With the development of the healthcare system, the length of hospital stay of patients is decreasing in order to reduce costs and prevent complications in the treatment process (Ozsaker, Akan, Dolgun and Candan Donmez, 2022). This situation leads to patients leaving the hospital earlier and continuing their recovery process at home (Nurhayati, Songwathana and Vachprasit, 2019). However, shortening the hospital stay carries the risk of being discharged without full recovery, in which case the responsibility of care remains with the patient and their family (Aslan, 2020). Therefore, patients need detailed information to maintain their own care at home after surgical procedures (Ozsaker, Akan, Dolgun and Candan Donmez, 2022). This shift underscores the importance of empowering patients through education that prepares them for safe and effective self-care post-discharge.

Discharge education is an important strategy aimed at facilitating the patient's transition from the hospital to the home environment (Nurhayati, Songwathana and Vachprasit, 2019; Mabire, Bachnick, Ausserhofer and Simon, 2019). Although all members of the healthcare team are responsible for educating patients and their families, discharge planning is primarily the responsibility of nurses. Under the leadership of the nurse, the process of patient and family education is initiated and discharge planning is provided in this context (Yalçın, Arpa, Cengiz and Dogan, 2015). Nurses play a key role in identifying individual needs and delivering tailored education that enhances patients' confidence in managing their recovery. Discharge education for surgical patients is essential for the patient to cope with symptoms not encountered in hospital; if education is not provided, patients may need to be readmitted (Soyer, Candan Donmez and Yavuz Van Giersbergen, 2018; Kang, Tobiano, Chaboyer and Gillespie, 2020). Effective education can prevent complications and readmissions by 50% (Kang, Tobiano, Chaboyer and Gillespie, 2020).

Discharge education enables patients and their families to develop their skills to cope with the problems they may encounter after discharge during the transition to home care (Nurhayati, Songwathana and Vachprasit, 2019; Aslan, 2020; Mabire, Bachnick, Ausserhofer and Simon, 2019). During the training, it is necessary to accurately assess the learning needs of the patients because the training should be shaped according to the needs of the patients (Güçlü and Kurşun, 2017; Fredericks, 2009). However, the fact that patients are not adequately prepared for discharge is often due to a lack of information (Aslan, 2020; Weiss, Costa, Yakusheva and Bobay 2014). It is important for nurses to create an educational plan based on the patient's needs and to personalise the content according to the patient's needs (Soyer, Candan Donmez and Yavuz Van Giersbergen, 2018; Kiner, Stichler, Ferber and Catterall, 2015). Therefore, the patient's needs must be identified before the education (Ozsaker, Akan, Dolgun and Candan Donmez, 2022). A patient-centred discharge process that considers individual readiness and learning expectations is more likely to improve satisfaction and health outcomes.

Central to discharge planning is the assessment of patient readiness for discharge. This assessment is directly related to the quality of discharge education and can prevent problems that patients face in the home care process (Aslan, 2020; Mabire, Bachnick, Ausserhofer and Simon, 2019). Evaluation of the discharge preparation process is becoming increasingly important for patient safety, satisfaction and patient outcomes (Aslan, 2020). Understanding the factors that hinder patients' readiness for discharge enables nurses to manage a more effective discharge process. In addition, accurate measurement of patients' learning needs is critical for an effective education and care process. Despite the importance of these assessments, there is limited evidence on how well patients feel prepared and whether their specific educational needs are met prior to discharge (Weiss et al., 2007; Bobay et al., 2010). This study aimed to assess the discharge readiness and learning needs of surgical patients and to examine the relationship between these variables.

Research Questions

- What are the learning needs of surgical patients at discharge?
- How ready are surgical patients to be discharged from hospital?
- Is there a relationship between the learning needs of surgical patients and their readiness for discharge?
- Do learning needs and discharge readiness differ according to patients' sociodemographic and clinical characteristics (e.g., gender, education level, type of surgery, discharge education status)?
- Is there a relationship between patients' satisfaction with discharge education and their readiness for discharge?

METHODS

Study design

This was a descriptive, cross-sectional study. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines were followed in the reporting of this research.

Population sample

The study population consisted of patients who underwent surgery at the university hospital in the Aegean region, were older than 18 years, were hospitalized for at least 24 hours after surgery, and agreed to participate in the study.

The sample size was calculated based on the mean and standard deviation values of the total Readiness for Hospital Discharge Scale reported by Kaya et al. (2018c). The effect size was determined using the mean score of the Readiness for Hospital Discharge Scale in this study (mean = 7.50, SD = 1.70). With the G-Power 3.1 programme, 0.45 of the standard deviation was determined as the lowest effect and the sample size was calculated as a total of 54 patients in the G-Power software programme with 95% power, 95% confidence interval and 0.05 margin of error. Considering that the sample loss would be 10%, it was planned that at least 60 hospitalized patients would form the sample of the study. The study was conducted with 116 patients who were admitted to the General Surgery Clinic between April and December 2023.

Data collection

Data were collected by face-to-face interviews from patients who underwent surgery between April and December 2023 in the general surgery department of a university hospital, who met the sampling criteria, and who agreed to participate in the study. The data were collected in the patient's room just before leaving the hospital, after the patient's discharge decision had been made. It took an average of 7-10 minutes to complete the data collection forms.

Data Collection Tools

Data were collected using the Patient Introduction Form, the Patient Learning Needs Scale (PLNS), and the Readiness for Hospital Discharge Scale – Short Form (RHDS/SF).

Patient Introduction Form: It includes a total of 22 questions created by the researchers to determine the demographic characteristics of the patients (such as age, gender, marital status, educational status, social security, employment status, place of residence, income status), past and current health characteristics (such as chronic disease, previous surgery, type of surgery, method, duration of hospitalization).

The Patient Learning Needs Scale (PLNS): This scale was developed (Bubela, Galloway and McCay, 1990) to determine the information needs of patients at discharge and its validity and reliability study in Turkey was conducted (Çatal and Dicle, 2008). The scale consists of a total of 50 items and has 7 sub-dimensions (medication, life activities, community and follow-up, feelings about the situation, treatment and complications, quality of life, skin care). Scale items are rated on a Likert scale from 1 to 5. Scores obtained from the scale vary between 50 and 250. An increase in the score obtained from the scale indicates an increase in the patient's learning needs. The items of the scale can be modified to indicate whether information about the identified information needs and priorities is provided prior to discharge and whether the information provided meets the needs. This modified form of the PLNS was named the Needs Met Score (NMS). In this study, both the patients' needs and the needs met score were evaluated. The Cronbach's alpha value of the original scale was 0.95 and the Turkish scale was 0.93 (Çatal and Dicle, 2008). In this study, Cronbach's alpha reliability coefficient of the scale was found to be 0.976.

Readiness for Hospital Discharge Scale/Short Form (PT-RHDS/SF): The Readiness for Hospital Discharge Scale (RHDS) measures patient readiness to return home from the hospital. The 22-item scale developed (Weiss and Piacentine, 2006), was developed (Weiss, Costa, Yakusheva and Bobay, 2014) in 2014 as eight questions and four subscales. It was adapted into Turkish (Kaya et al. 2018), with parallel questions to the nurse version and a 10-point Likert-type rating. The scale, which assesses patients' own readiness for discharge, consists of eight items and four subscales. These sub-dimensions are personal status, knowledge, coping ability and expected support. The eight items in the scale are scored from 0 to 10 to assess the patient's readiness for discharge.

If the average score obtained from the scale is in the range of 9-10, the patient is considered to be 'highly ready' for discharge, 8-8.9 as 'very ready', 7-7.9 as 'moderately ready' and below 7 as 'low ready'. The Cronbach's alpha value of the original scale is 0.90 and the Turkish scale is 0.75 (Weiss, Costa, Yakusheva and Bobay, 2014; Kaya et al., 2018). In this study, the Cronbach's alpha reliability coefficient of the scale was found to be 0.830.

Data Analysis

The analyses were performed in SPSS (Statistical Package for Social Science) 25 programme. Descriptive statistics (number, percentage, mean, standard deviation, median, minimum, and maximum) were used, and the internal consistency of the scales was evaluated using Cronbach's alpha reliability analysis. The assumption of normal distribution was checked by Shapiro Wilk test and homogeneity of variance was checked by Levene test. In cases where the assumption of normality was met, the Independent Sample T test was used to compare two independent groups, and in cases where the assumption was not met, the Mann Whitney U test was applied. Kruskal Wallis test was used for the comparison of three or more independent groups that do not have normal distribution. Spearman correlations were applied to analyze the relationships between continuous measurements that were not suitable for normal distribution. $p < 0.05$ was accepted as statistical significance level.

Ethical consideration

In order to conduct the study, approval was obtained from the Medical Research Ethics Committee of Ege University Faculty of Medicine (16.12.2022-E.1040266) and the necessary institutional approval from the hospital where the study was conducted. Permission to use the scales was obtained from the owners of the scales by e-mail. The purpose of the study was explained to the patients included in the study and their consent to participate in the study was obtained. Descriptive information such as first and last name of the participants was not requested in the data collection forms, and all data was collected anonymously. The study was conducted in accordance with the tenets of the Declaration of Helsinki.

RESULTS

The mean age of the participants was 52 ± 16.6 years, 53.4% were female, 31.0% had completed primary education, 78.4% were married, and 59.5% were not working. 44.0% of the participants reported that their income equaled their expenses. Chronic illnesses were reported by 32.8%, 68.1% had been hospitalized previously, and 65.5% had undergone surgery before. Concerning the current surgical procedure, 74.1% underwent elective surgery, 57.8% had open surgery, and 88.8% received general anesthesia. The mean length of hospital stay was 8.53 ± 11.32 days. Discharge education was received by 68.1% of patients, and among them, 83.3% considered the education sufficient (Table 1).

Table 1: Distribution of individuals according to their demographic and health-related characteristics (n=116)

		n	%
Gender	Female	62	53.4
	Male	54	46.6
Educational status	Illiterate	5	4.3
	Primary school graduate	36	31.0
	High school graduate	43	37.1
	University graduate	32	27.6
Marital status	Married	91	78.4
	Single	25	21.6
Employment status	Employed	47	40.5
	Unemployed	69	59.5
Income status	Less than expenses	32	27.6
	Equal to expenses	51	44.0
	More than expenses	33	28.4
Chronic illness	Yes	38	32.8
	No	78	67.2
Previous hospitalization	Yes	79	68.1
	No	37	31.9
Previous surgery	Yes	76	65.5
	No	40	34.5
Type of Current Surgery	Emergency	30	25.9
	Elective	86	74.1
Surgical method	Open surgery	67	57.8
	Laparoscopic surgery	49	42.2
Type of anesthesia	General anesthesia	103	88.8

Received discharge education	Spinal anesthesia	13	11.2
	Yes	79	68.1
Perceived adequacy of discharge education	No	37	31.9
	Yes	65	83.3
	No	1	1.3
	Partially	12	15.4
Continuous Variables:		Min-Max	x±SD (Median)
Age		20-87	52±16.64 (52.50)
Length of hospital stay (days)		1-75	8.53±11.32 (6)
Postoperative day		1-75	7.22±10.74 (5)

n: Number (Sample size), %: Percentage, *X*: Mean, *SD*: Standard deviation, *Min*: Minimum value, *Max*: Maximum value

The mean total score of the Patient Learning Needs Scale (PLNS) was 225.38±29.42, indicating a high level of learning needs. Among sub-dimensions, the highest needs were identified in Life Activities (40.47±5.62) and Treatment and Complications (41.4±4.86), while the lowest were in Community and Follow-Up (26.28±4.39) and Emotions Regarding the Situation (21.54±4.28). The mean Needs Met Score was 188.85±52.56, suggesting that most patients' learning needs were partially met.

The Readiness for Hospital Discharge Scale (RHDS) mean score was 7.5±1.7, indicating a moderate level of discharge readiness. Among the sub-dimensions, Expected Support (8.56±1.82) had the highest mean score, while Knowledge (6.6±2.97) had the lowest, suggesting a perceived lack of information (Table 2).

Table 2: Score Distributions of the PLNS and the RHDS in Surgical Patients

	Min-Max	Mean±SD (Median)
Medications	14-40	36.98±4.19 (39)
Activities of Daily Living	11-45	40.47±5.62 (42)
Community and Follow-up	9-30	26.28±4.39 (27)
Feelings Regarding the Situation	8-25	21.54±4.28 (23.5)
Treatment and Complications	18-45	41.4±4.86 (44)
Quality of Life	15-40	36.05±4.86 (38)
Skin Care	6-25	22.62±3.34 (24)
Total PLNS Score	79-250	225.38±29.42 (233)
Learning Needs Fulfillment Score	50-250	188.85±52.56 (200)
Personal Status	0-10	7.18±2.44 (7.5)
Information	0-10	6.6±2.97 (7.5)
Coping Ability	0-10	7.67±1.99 (8)
Expected Support	0-10	8.56±1.82 (9)
Total RHDS Score	0-10	7.5±1.7 (7.75)

X: mean, *SD*: standard deviation, *Min*: minimum value, *Max*: maximum value. PLNS = Patient Learning Needs Scale; RHDS = Readiness for Hospital Discharge Scale.

Significant positive correlations were found between several PLNS sub-dimensions and RHDS scores. The Life Activities sub-dimension showed weak positive correlations with Coping Skills ($r = 0.246$, $p = 0.008$), Expected Support ($r = 0.205$, $p = 0.027$), and the total RHDS score ($r = 0.190$, $p = 0.041$). Similarly, the Community and Follow-Up sub-dimension was weakly positively correlated with Coping Skills ($r = 0.200$, $p = 0.031$) and Expected Support ($r = 0.201$, $p = 0.030$). The Emotions Regarding the Situation sub-dimension showed a weak positive correlation with the total RHDS score ($r = 0.288$, $p = 0.002$) (Table 3).

In addition, the Treatment and Complications sub-dimension showed weak positive correlations with Coping Skills ($r = 0.269$, $p = 0.004$), Expected Support ($r = 0.234$, $p = 0.011$), and the total RHDS score ($r = 0.243$, $p = 0.008$). The Quality-of-Life sub-dimension demonstrated weak positive correlations with Coping Skills ($r = 0.241$, $p = 0.009$), Expected Support ($r = 0.228$, $p = 0.014$), and RHDS ($r = 0.227$, $p = 0.014$). The Skin Care sub-dimension showed a weak positive correlation with the total RHDS score ($r = 0.193$, $p = 0.038$). Finally, the total PLNS score was weakly positively correlated with Coping Skills ($r = 0.222$, $p = 0.017$), Expected Support ($r = 0.232$, $p = 0.012$), and RHDS ($r = 0.226$, $p = 0.015$) (Table 3).

Table 3. Correlation between the PLNS and the RHDS Subscale Scores

		Personal Status	Information	Coping Ability	Expected Support	Total RHDS
Medications	r	0.126	-0.035	0.168	0.154	0.128
	p	0.176	0.708	0.072	0.098	0.172
Activities of Daily Living	r	0.133	0.023	0.246	0.205	0.190
	p	0.154	0.808	0.008*	0.027*	0.041*
Community and Follow-up	r	0.142	0.073	0.200	0.201	0.191
	p	0.128	0.439	0.031*	0.030*	0.040*
Feelings Regarding the Situation	r	0.229	0.153	0.269	0.260	0.288
	p	0.013*	0.101	0.003*	0.005*	0.002*
Treatment and Complications	r	0.173	0.058	0.269	0.234	0.243
	p	0.063	0.540	0.004*	0.011*	0.008*
Quality of Life	r	0.147	0.085	0.241	0.228	0.227
	p	0.116	0.362	0.009*	0.014*	0.014*
Skin Care	r	0.130	0.068	0.176	0.129	0.193
	p	0.165	0.469	0.059	0.167	0.038*
Total PLNS Score	r	0.158	0.082	0.222	0.232	0.226
	p	0.091	0.381	0.017*	0.012*	0.015*

r: Spearman Pearson correlation coefficient, $p < 0.05$ indicates statistical significance.

In the subgroup analysis, no significant differences were found in PLNS or RHDS scores based on education level, marital status, employment status, chronic illness, history of surgery, type of current surgery, surgical method, or anesthesia type ($p > 0.05$).

However, statistically significant differences in RHDS scores were observed according to gender, status of receiving discharge education, and perceived adequacy of discharge education ($p < 0.05$) (Table 4).

Table 4. Comparison of PLNS and The RHDS Scores according to the Characteristics of Surgical Patients

		Patient Learning Needs Scale	Discharge Readiness Scale
		Mean±SD (Median)	Mean±SD (Median)
Gender	Female	222.92±27.8 (228)	7.23±1.73 (7.44)
	Male	228.2±31.19 (244.5)	7.81±1.64 (8)
	Test Statistic	-1.214	-1.977
	p	0.225	0.048*
Educational Status	Illiterate	241.8±17.24 (250)	7.75±1.71 (7.25)
	Primary school graduate	223.14±34.08 (229)	7.37±2.09 (7.94)
	High school graduate	223.72±25.31 (230)	7.45±1.3 (7.5)
	University graduate	227.56±30.58 (246)	7.68±1.77 (8)
	Test Statistic	3.751	1.020
	p	0.290	0.796
Marital Status	Married	224.64±30.31 (230)	7.54±1.68 (7.75)
	Single	228.08±26.29 (247)	7.38±1.81 (7.38)
	Test Statistic	-1.083	-0.474
	p	0.279	0.636
Employment Status	Employed	223.89±32.9 (233)	7.71±1.56 (8)
	Unemployed	226.39±27 (233)	7.36±1.8 (7.5)
	Test Statistic	-0.156	1.077†
	p	0.876	0.284
Presence of Chronic Illness	Yes	226.05±33.83 (245)	7.20±1.61 (7.38)
	No	225.05±27.25 (231.5)	7.65±1.74 (8)
	Test Statistic	-0.604	-1.669
	p	0.546	0.095
History of Previous Surgery	Yes	225.8±30.2 (231.5)	7.56±1.73 (7.81)
	No	224.58±28.24 (239)	7.38±1.66 (7.5)
	Test Statistic	-0.132	-0.726
	p	0.895	0.468
Type of Surgery	Emergency	227.1±24.39 (231.5)	7.77±1.45 (8)
	Elective	224.78±31.09 (233)	7.41±1.78 (7.5)
	Test Statistic	-0.083	1.007†
	p	0.934	0.316
Surgical method	Open surgery	219.36±33.17 (225)	7.29±1.76 (7.75)
	Laparoscopic surgery	233.61±21 (245)	7.80±1.6 (7.75)

	Test Statistic	-1.958	-1.639
	p	0.050	0.101
Type of anesthesia	General anesthesia	225.46±30.6 (233)	7.51±1.73 (7.75)
	Spinal anesthesia	224.77±18.23 (225)	7.46±1.59 (7.5)
	Test Statistic	-0.717	-0.346
	p	0.474	0.729
Status of receiving discharge education	Yes	229.51±23.88 (245)	7.94±1.33 (8)
	No	216.57±37.57 (221)	6.56±2.02 (6.88)
	Test Statistic	-1.632	-3.770
	p	0.103	<0.001*
Perceived adequacy of discharge education	Yes	230.31±24.31 (245)	8.12±1.28 (8.25)
	No- Partially	222±21.8 (225)	7.03±1.29 (7)
	Test Statistic	-1.564	-2.495
	p	0.118	0.013*

* $p < 0.05$ indicates statistical significance, †: Independent Samples *t*-test.

DISCUSSION

Patient Learning Needs Scale (PLNS)

This study evaluated the learning needs of surgical patients, the extent to which these needs were met, and their readiness for hospital discharge. The high mean total PLNS score indicates that surgical patients had substantial learning needs. Previous studies have reported mean PLNS scores ranging between 191.44±34.25 and 205.0±26.7, supporting the notion that surgical patients consistently exhibit a high demand for education (Soyer, Candan Donmez and Yavuz Van Giersbergen, 2018; Güçlü and Kurşun, 2017; Burucu, Yıldız, Uğur and Şahin; 2023). This underscores the essential role of structured education in improving the quality of healthcare services. The highest sub dimension scores, observed in Activities of Daily Living and Treatment and Complications, suggest that patients particularly require support in managing daily life tasks and understanding potential complications during recovery. Educational strategies based on nursing models that incorporate daily living activities offer a holistic approach to care, improving patient satisfaction, perceived care quality, and trust in healthcare services (Nestler, 2019). Nurses play a pivotal role in helping patients regain independence in daily activities and are central to functional discharge planning. Early initiation of patient education can promote smoother recovery and better outcomes (Gülşen and Arslan, 2023).

While the high Needs Fulfilment score indicates that patients' educational needs were largely met, the relatively low scores in the Community and Follow-up sub dimension highlight existing gaps. The perioperative period is not only a time for physical recovery but also one that necessitates ongoing psychosocial and community support. Given the global rise in surgical procedures, educational programs should evolve beyond brief, task-focused sessions to more comprehensive and patient-centered models (Kayar and Erdem, 2022). As previous literature also notes, the lack of sufficient focus on post-discharge community reintegration remains a significant deficiency (Dursun and Yılmaz, 2016). It should not be forgotten that patients' recovery processes include not only physical recovery but also social and psychological recovery. The lack of this sub-dimension reveals the importance of addressing patient care from a broader perspective.

Although various sociodemographic factors (including age, gender, education level, income, disease duration, and marital status) have been reported to influence learning needs (Menekli and Doğan, 2022; Al-Maskari, Al-Noumani, Al-Maskari, 2021), this study found no significant impact of variables such as educational or marital status. Similar results were observed in studies by Soyer et al. (2018), Ozsaker et al. (2022), and Yılmaz (2017). These inconsistencies across studies suggest that learning needs are highly individual. Therefore, discharge education should be personalized, considering each patient's unique characteristics and areas of need to improve preparedness for discharge.

Readiness for Hospital Discharge Scale (RHDS)

Discharge readiness is vital for ensuring continuity of recovery at home and avoiding complications (Deniz Doğan, Yurtseven, Arslan and Akçam; 2024). In this study, the mean RHDS score indicated a moderate level of discharge readiness, consistent with findings from other studies (Deniz Doğan, Yurtseven, Arslan and Akçam; 2024; Kiloczko and Grabowska, 2019; Durmaz and Özbaş, 2023; Qian et al., 2021). This emphasizes the need for enhanced discharge education and support.

A variety of factors may contribute to patients feeling unprepared at discharge. These include time constraints for nurses, patients' difficulty in processing information due to anxiety, and discrepancies between nurses' and patients' discharge priorities (Deniz Doğan, Yurtseven, Arslan and Akçam; 2024). The highest score in the Expected Support sub dimension suggests that patients rely heavily on family and social support post-discharge.

Previous research confirms that such support facilitates physical recovery, reduces complications, and contributes to psychological well-being (Gökçe and Arslan, 2024; Cardoso-Moreno and Tomas-Aragones, 2017; Castellano-Santana et al., 2025). Discharge education should thus be extended to family members. Involving caregivers in discharge planning improves care continuity and reduces readmission risk (Topham et al., 2022). The high coping skills score reflects that most patients felt capable of managing post-discharge challenges, though some may require further support. Coping skills (defined as the ability to handle stress and anxiety) are essential for positive health outcomes (Erbay, Aslan and Bolgün, 2022). Given that these skills are shaped by personal traits, social support, and prior experiences, education efforts should be tailored accordingly.

The lowest score in the information subdimension signals that patients felt insufficiently informed at discharge. Especially in surgical contexts, patients require clear and comprehensive information on their condition, possible complications, and follow-up care (Çetinkaya and Duru Aşiret, 2017). Repetition of key discharge information and involving caregivers in education can enhance patient understanding and preparedness (Meşe and Köşgeroğlu, 2021).

Interestingly, male patients were more prepared for discharge than female patients a finding consistent with some literature (Deniz Doğan, Yurtseven, Arslan and Akçam, 2024; Kaya, Güven and Aydan, 2018). This may reflect gender differences in expressing concerns, training needs, or home responsibilities. Patients who received discharge education had significantly higher RHDS scores, and perceived adequacy of education was also linked to higher readiness levels. These results align with prior studies (Knier, Stichler, Ferber and Catterall, 2025; Özsoy Durmaz and Özbaş, 2023; Kahyaoğlu Süt, Küçükkaya, Elkan Kiyat and Şallı, 2021), reinforcing that well-structured discharge training not only improves knowledge but also promotes psychological preparedness and recovery confidence. Education content should be comprehensive beyond medical facts to include coping strategies, emotional support, and practical post-discharge planning.

Correlation between PLNS and RHDS

This study found statistically significant positive correlations between various sub-dimensions of the PLNS and the RHDS, indicating that patients' learning needs directly influence their readiness for discharge. The correlation between Activities of Daily Living and Coping Ability, Expected Support, and total RHDS score suggests that educational needs related to daily routines are closely tied to patients' confidence and preparedness. Previous research supports the view that addressing learning needs enhances both psychological and physical recovery (Gümüş and Bursa, 2024).

Similarly, the Community and Follow-up sub dimension was significantly related to Coping Ability and Expected Support. This indicates that understanding the social and practical aspects of recovery encourages patients to utilize coping mechanisms and seek support. The role of social support in recovery is well documented (Topham et al., 2022; Orlas et al., 2021).

The Emotions Regarding the Situation sub dimension also correlated significantly with RHDS, highlighting the role of emotional well-being in discharge preparedness. Anxiety can hinder both physical recovery and effective discharge transitions (Demir Korkmaz, Dolgun, Karacabay and Yavuz Van Giersbergen, 2025). Thus, addressing emotional health during patient education is crucial. Significant associations between the Treatment and Complications subdimension and Coping Ability, Expected Support, and RHDS indicate that adequate knowledge of the treatment plan contributes to better coping, confidence, and reduced hospital readmission risk (Kaya et al., 2018). Furthermore, correlations between the Quality-of-Life subdimension and RHDS metrics reinforce that recovery is multidimensional encompassing not only physical but also psychological and social well-being (Hofman, Zajdel, Klekowski and Chabowski, 2021). Supporting these dimensions can strengthen patients' post-discharge adaptation.

Finally, the strong overall correlation between total PLNS and RHDS scores suggests that comprehensive educational support covering information, emotional support, and coping strategies substantially enhances readiness for discharge.

Conclusion and Recommendations

This study found that surgical patients exhibited moderate readiness for hospital discharge, and that this readiness was significantly influenced by factors such as receipt of discharge education, gender, and perceived adequacy of education. Patients felt most prepared in terms of expected social support and least prepared in terms of information received.

Importantly, the findings demonstrate that meeting patients' learning needs is positively associated with their discharge readiness. Therefore, individualized and comprehensive discharge education programs are essential. These programs should integrate clinical information with psychosocial and emotional support components and include family members in the educational process.

By enhancing coping skills and reinforcing social support, healthcare providers can improve patients' readiness for discharge, foster a smoother recovery, and reduce the risk of post-discharge complications. Future interventions should adopt multidisciplinary and patient-centered strategies to optimize post-surgical outcomes and improve the overall discharge experience.

Strengths and Limitations

A key strength of this study lies in its comprehensive exploration of surgical patients' discharge preparation processes. By examining both informational needs prior to discharge and expectations for social support, the study offers a holistic understanding of factors influencing discharge readiness. The findings contribute valuable insights for healthcare professionals involved in patient education and discharge planning and provide a data-driven foundation for enhancing nursing practices and patient recovery outcomes.

The use of validated measurement tools (PLNS and RHDS) and a large sample size further strengthen the reliability and credibility of the findings.

However, several limitations should be acknowledged. First, the study was conducted in a single hospital and surgical clinic, which may limit the generalizability of the results. Future research involving multiple institutions and diverse clinical settings could offer broader insights into discharge practices across different healthcare environments.

Second, the study focused solely on the patients' perspectives, without incorporating the viewpoints of family members or healthcare professionals. This may have restricted the depth of understanding regarding the multifaceted support needs of patients during the discharge process.

Lastly, the study employed a cross-sectional design, capturing patient experiences at a single point in time. The long-term effects of discharge education and the extent to which learning needs were met could be more accurately evaluated through longitudinal follow-up. Future studies adopting this approach could yield deeper insights into the sustainability of discharge preparedness and its impact on post-discharge outcomes.

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