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Research

Effects of Discharge Education and Telephone Follow-up on Cataract Patients' Activities According to the Model of Living

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A B S T R A C T

Purpose: Assess the impact of planned discharge education and telephone follow-up of patients who underwent cataract surgery on daily living activities.
Design: A controlled comparative study.
Methods: This study was carried out on patients who underwent cataract surgery (intervention group = 72, control group = 72). Discharge education designed according to the Model of Living was used in the intervention group. Phone follow up was performed for both groups after surgery and activities were assessed.
Findings: Significant differences were found between the two groups in applying eye drops, knowledge on using old eye glasses and protecting the operated eye, conditions requiring a physician call, conditions that may deteriorate the operated eye, personal hygiene, mobilization, and sleeping ($P < .05$).
Conclusions: Using a Model of Living in discharge education of cataract patients and following up using a structured checklist was an effective intervention. This model can be efficiently used in postoperative education of day surgery patients.

Cataracts are one of the primary health problems that arise in the elderly and are considered among the main causes of blindness around the world.[1] Cataracts not only affect the vision but also prevent individuals from performing daily activities by affecting them physically, socially, and psychologically.[2] Apart from having difficulties in fulfilling self-care independently, patients are also faced with serious life threats from undesirable situations such as falling.[3] Cataracts can only be treated surgically. After surgical treatment, the vision of an average person improves up to 95% by the end of the first month.[4] Postoperative care is as important as the surgical procedure in terms of insuring that patients resume a normal life.[4] Most patients who undergo cataract surgery as outpatients are usually discharged from the hospital 5-6 hours after the procedure or the next day[5]; therefore, nurses have a great responsibility with regard to discharge education. Another important issue to be considered in the postoperative period is the method of providing the discharge education and the requirements for supporting this education with appropriate materials.[6] Studies conducted with subjects who had outpatient surgery generally focus on anxiety levels, depression,[7] information-related necessities and lack of information,[8] factors that affect the duration of hospital stay, pain that occurs in the postoperative period, experiences in the home environment, difficulties confronted,[9,10] and patient comfort and factors that affect comfort.[11] Research studies that address the specific problems experienced by patients who undergo cataract surgery are considerably limited. Exceptions include the study conducted by Owsley et al in which the impact of cataract surgery on daily activities was examined,[5] studies conducted on the impact of cataract surgery on cognitive functions of the elderly[12] and the impact of therapeutic touch during cataract surgery on anxiety and satisfaction levels of patients and on visual function and life quality.[13] There are no studies related to the influence of discharge education and patient follow-up on eye surgery patients' daily living activities. Çilingir and Bayraktar determined, in a study which they conducted on patients who underwent eye surgery, that the problems confronted by these patients are preventable through discharge education.[14] One study found the provision of health care via telephone (telehealth) to be an efficient way of facilitating

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patient care and follow-up.[15] Other investigators observed that telehealth is a great convenience not only for patients but also for health care staff.[16]

Being able to return to their regular lifestyle after surgery is a great opportunity for same-day surgery patients. Implementing nursing care and following up patients with a structured, well-acknowledged model is particularly beneficial. The "Model of Living" developed by Roper, Logan, and Tierney includes twelve daily living activities[17] and is recognized as an effective model in terms of care of surgical patients.[18] Roper et al identified 12 daily living activities, each with multiple aspects. All the daily living activities included in this model interact with each other. The specific activities include maintaining a safe environment, communication, breathing, eating and drinking, elimination, washing and dressing, controlling temperature, mobilization, working and playing, expressing sexuality, sleeping, and death and dying.[17,18]

The purpose of this study was to assess the impact of planned discharge education and telephone follow-up on daily living activities according to the Model of Living on patients who underwent initial cataract surgery.

Methods

Population and Sample

According to hospital statistics, there were 226 patients who underwent cataract surgery in the previous year. Our study sample size was calculated using the Raosoft sample size calculator with a 95% confidence level and a 5% margin of error. The required sample size was 144 patients, 72 in the intervention group and 72 in the control group. The study population included patients having undergone cataract surgery for the first time performed by one surgeon at a university hospital eye clinic. The dates of recruitment were from February 20, 2017, to June 19, 2017.

Inclusion criteria were being scheduled for cataract surgery under local anesthesia, volunteering to participate in this study, having eye surgery for the first time, being able to cooperate, not having any hearing problems, and being at least 18 years of age.

Ethical Considerations

The ethics board of the university approved this study on 07.02.2017 (reference number: 2017-1/10).

Instruments

Patient discharge education was provided according to the Model of Living. Data were collected using a form which consisted of two sections:

1. Demographic variables of the patients.
2. A list of 54 items to follow-up with cataract surgery patients postoperatively.

Details on recruitment of the patients and data collection procedure are provided in Figure 1.

Development of the Demographic Data Questionnaire

A demographic questionnaire was developed by our research team based on the relevant literature. The questionnaire contained 16 questions (e.g., patient's age, gender, education, previous surgery experience) including the patient's telephone number for follow-up. Researchers also provided their personal phone number to the patients recruited in both groups.

Development of the Discharge Education Plan

Discharge education was designed according to the Model of Living and consisted of 12 headings (maintaining a safe environment, communication, breathing, eating and drinking, elimination, washing and dressing, controlling temperature, mobilization, working and playing, expressing sexuality, sleeping, death and dying). Each heading was used by researchers according to the literature. The content under each heading was discussed until a mutual understanding was reached. The education plan included suitable wording and support with pictures. Discharge education was prepared as a PowerPoint presentation. Each sentence consisted of a maximum of 4-5 words, included no medical terminology, and was appropriate for elementary school graduates. After the development of the discharge education plan, the expert opinions of an eye surgeon who is specialized in cataract surgery and 6 nurses who work in an eye clinic were obtained. Based on the suggestions from the expert panel, final adjustments were made, and the product was tested on 10 patients for intelligibility.

Development of the Patient Follow-up Form

A patient follow-up form consisting of 54 items related to patients' daily living activities was developed by researchers according to the Model of Living.

This tool was evaluated for suitability by a panel of 6 nurses working in an eye surgery clinic and 4 faculty from the nursing department. After adjustments based on their suggestions, it was tested on 10 patients, and the internal consistency (Cronbach's α) was calculated as 0.89.

Recruitment of Patients

To maintain controlled patient selection for the study groups (intervention and control), the daily operation schedule list of the eye clinic was used. Names of the patients listed with odd numbers were included in the intervention group, and patients listed with even numbers were included in the control group. Both intervention and control group patients were informed about the study both verbally and in writing. They were also informed that participation was voluntary.

Implementation of the Study

Preoperatively, on the day of surgery, data related to demographics were collected for all participants.

Postoperatively, on the day of surgery, a researcher provided discharge education which lasted about 15-20 minutes using a tablet computer for each patient in the intervention group. The content of the discharge education was also converted into a booklet and handed to each patient in the intervention group to take home.

Patients in the control group were subjected to the usual postoperative care education verbally which consisted of scheduling a return appointment for the following day, instruction not to remove the eye patch, and instruction to take pain relievers if needed.

A patient follow-up form organized into 12 categories according to the Model of Living with 54 items having yes or no or multiple options ranging from 0 to 4 was filled out by the researcher on the first postoperative day using a face-to-face interview with patients

from both groups. Postoperatively on days 3 and 10, the same form was completed via telephone for all patients.

Data Analysis

Data were analyzed using the SPSS software, version 20. Results were given in numbers, percentages, means, and SDs. Statistical analyses were performed using normal distribution, Pearson's chi-square test, Fisher's exact test, likelihood ratio, and Mann-Whitney U test. A significance level of $P < 0.05$ was chosen.[19]

Results

Both the intervention and the control group patients were similar according to demographic variables ($P > .05$; Table 1). The mean age of the patients in the intervention group was 67.74 ± 11.42. In the control group, the mean age was calculated as 69.74 ± 10.8 years. The knowledge level related to care after cataract surgery was 1.38 ± 1.74 for the intervention group and 1.04 ± 1.16 for the control group (visual analog scale 0-10).

Differences in items between the intervention and the control groups included those under the heading "maintaining a safe environment" as detailed in Table 2. Statistically significant differences were found between the intervention and the control groups for administering eye drops, knowledge on using old eye glasses, knowledge related to protection of the operated eye, and differentiating conditions which require calling the doctor ($P < .05$). No differences were observed on items between the intervention and the control groups included under "communication," "eating and drinking," or "elimination" ($P > .05$). Items under "breathing activity" (sudden coughing and sneezing) were significant between groups on all postoperative days (Table 3). Differences between groups on "washing and dressing," "controlling temperature," and "mobilization" are presented in Table 4. Most of the categories under these headings were statistically significant ($P < .05$). "Working and playing," "sexuality," and "death" were statistically insignificant ($P > .05$). Regarding the "sleep" category, knowledge

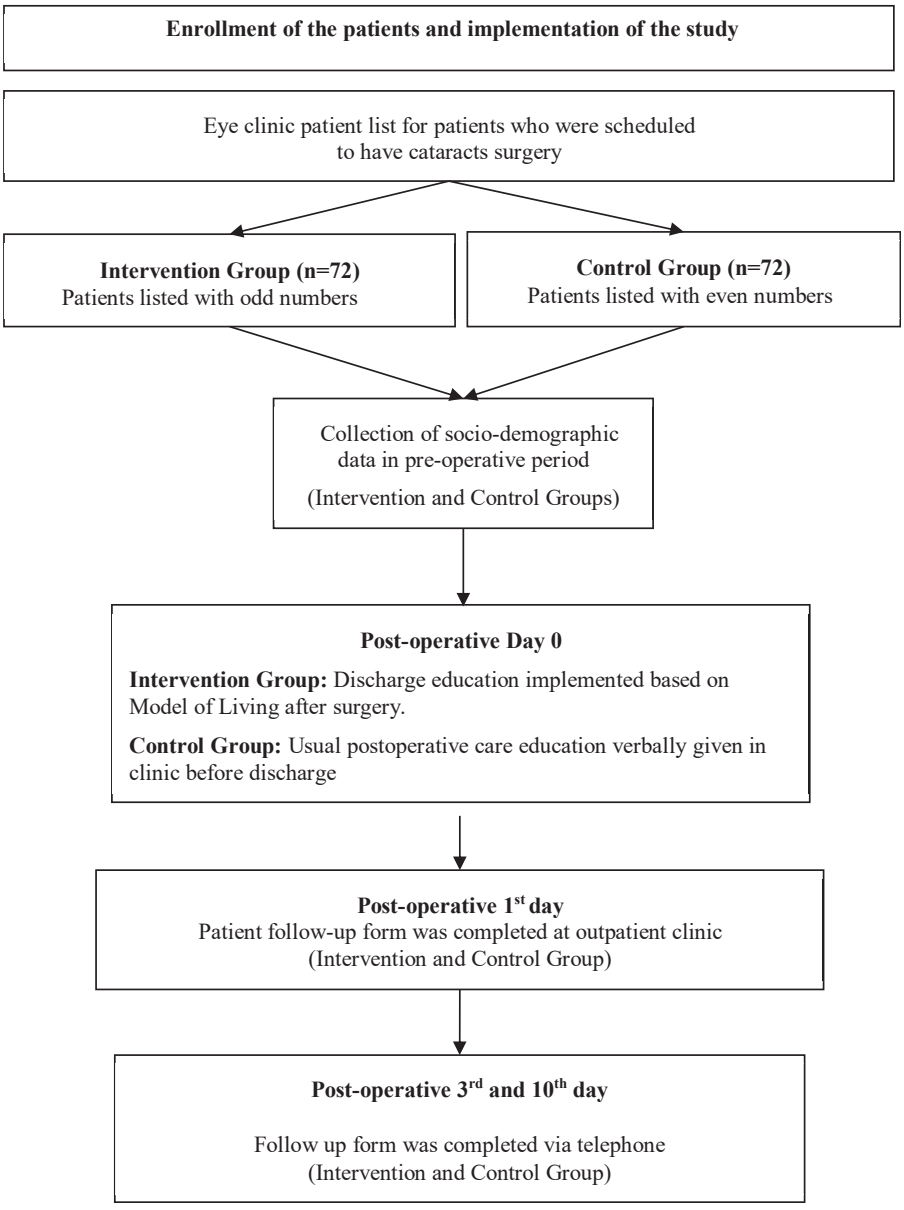

Figure 1. Flow diagram of the study.

Table 1
Comparison of Two Groups According to Demographic Variables

Intervention Group (n = 72), Mean		Control Group (n = 72), Mean	Significance
Age	67.7	69.74	>0.05
Knowledge level on care after surgery (VAS − 0-10)	1.38	1.04	>0.05
Gender, n (%)			
Female	32 (44.4)	34 (47.2)	>0.05
Male	40 (55.6)	38 (52.8)	
Marital status, n (%)			
Married	56 (77.8)	44 (61.1)	>0.05
Single	1 (1.3)	1 (1.4)	
Other	15 (20.9)	27 (37.5)	
Education level, n (%)			
Elementary + middle school	50 (69.4)	59 (81.94)	>0.05
High school + university	22 (30.6)	13 (18.06)	
Profession, n (%)			
Salaried employee	8 (11.1)	3 (4.1)	>0.05
Retired	35 (48.7)	30 (41.7)	
Self-employment	3 (4.1)	10 (13.9)	
Housewife	24 (33.3)	29 (40.3)	
Other	2 (2.8)	0 (0.0)	
Income level, n (%)			
Good	6 (8.3)	1 (1.3)	>0.05
Average	58 (80.6)	61 (84.8)	
Bad	8 (11.1)	10 (13.9)	
Place of residence, n (%)			
City	28 (38.9)	13 (18.0)	>0.05
County	35 (48.7)	39 (54.2)	
Village	9 (12.4)	20 (27.8)	
Having chronic disease, n (%)			
Yes	46 (63.9)	47 (65.3)	>0.05
No	26 (36.1)	25 (34.7)	
Hospitalization experience, n (%)			
Yes	30 (41.7)	26 (36.1)	>0.05
No	42 (58.3)	46 (63.9)	
Previous surgery experience, n (%)			
Yes	15 (20.8)	15 (20.8)	>0.05
No	57 (79.2)	57 (79.2)	
Regular medicine use for chronic diseases (e.g., diabetes, hypertension), n (%)			
Yes	46 (63.9)	47 (65.3)	>0.05
No	26 (36.1)	25 (34.7)	

VAS, visual analog scale.

related to the right sleeping position and feeling uncomfortable when falling asleep were significant on the first postoperative day between the two groups ($P < .05$) (Table 4).

Discussion

Results of this study are discussed in relation to the literature according to the headings included in the Model of Living.

Maintaining a Safe Environment

Almost all patients who undergo cataract surgery are discharged from the hospital on the day of surgery. Care of these discharged patients is mainly the responsibility of the patient or family members.[6] Because the length of stay of the patient in the hospital after cataract surgery is short, it is essential for the physician and nurses to coordinate patient care.[20]

The most common concern among patients after the operation is feeling pain. Pain affects individuals' psychological, physiological, and social well-being and prevents them from performing daily life activities.[21] According to studies carried out by Tiihonen et al[22] and Koay et al,[23] it was determined that patients experience some level of pain after cataract surgery.

In this study, the mean score for pain was near 1 on a scale of 0-10 at each time period. The small amount of pain that patients did experience declined over time in both groups.

In both groups, symptoms of stinging, blood buildup in the eye, confusion about colors, and unclear vision were also minor and declined over time. These results are consistent with the literature which indicates that while these symptoms can be intensive after surgery on the first day, the effects decrease after 48-72 hours.[24,25]

A well-known fact is that aging diminishes people's activities and patients with cataracts or other visual function problems are at risk for falling.[26-28] In this study, activities related to safety (climbing stairs, walking in and outside, using public transportation, driving a car) were not significantly different between groups (>0.05). One recommendation is for patients to go home with an attendant after being discharged from the hospital without using public transportation if possible[29]; however, some patients from both groups needed to use public transportation. Considering that patients were at an average socioeconomic level, the preference for using public transportation can be explained by demographic variables.

The control group had difficulties in administering eye drops which decreased over time. This group had to learn to perfect the procedure according to Korkusuz and Karahan which agreed with our control group findings.[10]

Patients who undergo cataract surgery can take their previously prescribed medicine (eg for blood pressure and diabetes) without having any concerns.[29,30] However, aspirin-derived medicines are contraindicated because those types of medicines may cause bleeding.[24] Effective discharge education is essential in reducing complications, preventing rehospitalization[10,26] and avoiding wrong practices. Some patients had worries regarding resuming medications for other chronic conditions which were not statistically significant but more questions arose from the control group since they did not receive instructions related to this topic. Questions asked by some patients in the control group which describe their concerns included “Does my diabetes affect my eye?” or “Does my high blood pressure medication affect my eye?”

According to the literature, protecting the operated eye during the recovery period from dust, smoke, wind, and sun and using sunglasses or an eye patch are an option.[29] Furthermore, it is important to avoid touching, rubbing the eyes for 2 weeks, or putting pressure on them. Using makeup, bending down, lifting weights (over 4.5 kg), and laying down on the side of the operated eye should also be avoided to prevent the operated eye from being harmed and to avoid complications.[25-29] Ignorance related to protecting the operated eye could result in severe complications and readmission to the hospital as well. In this study, because patients' eyes were covered with eye patches after the operation, they may not have focused on taking additional protective measures. Knowledge concerning important tips to protect the eye was found to be significantly less in the control group.

Patients are commonly advised to use their old glasses until their operated eye is checked by a physician, which usually occurs 1 month after surgery. Depending on the outcome of this examination, if the physician considers it necessary, a new prescription for eye glasses may be provided to the patient.[29] In our study, the difference between patients' concerns regarding using old glasses was significant on the first postoperative day ($P < .05$) and insignificant on the following days. This result could be associated with a physician's reminder during the checkup performed on the first day.

Table 2
Differences Between Groups on the Parameter of Maintaining a Safe Environment*

	Postoperative Day 1		Postoperative Day 3		Postoperative Day 10	
	Mean (Intervention/Control)	Significance	Mean (Intervention/Control)	Significance	Mean (Intervention/Control)	Significance
Severity of the pain, VAS (0-10)	1.03/0.90	NS	0.24/0.22	NS	0.15/0.03	NS
How disturbing were these situations for you?† (range 0-1)						
Throbbing, burning sensation in the eye	0.97/1.08	NS	0.36/0.45	NS	0.15/0.06	NS
Blood buildup in the eye	0.96/1.08	NS	0.25/0.38	NS	0.04/0.00	NS
Not being able to distinguish colors	0.31/0.16	NS	0.09/0.06	NS	0.07/0.04	NS
Not being able to see clearly	0.90/0.86	NS	0.32/0.24	NS	0.13/0.08	NS
How difficult were to resume activities listed below?† (range 0-2)						
Climbing up stairs	0.22/0.26	NS	0.07/0.15	NS	0.06/0.04	NS
Walking in the house	0.12/0.07	NS	0.07/0.08	NS	0.06/0.03	NS
Walking outside	0.14/0.14	NS	0.09/1.11	NS	0.06/0.04	NS
Using public transportation	0.33/0.32	NS	0.18/0.36	NS	0.15/0.07	NS
Administering eye drops	Eye patch is used on the first postoperative day		0.65/1.50	<0.001	0.43/1.24	<0.001
Were these activities/situations worrisome to you?						
Taking pain relievers						
Yes (n)	5/5	NS	5/4	NS	5/4	NS
No (n)	56/57		56/58		56/58	
NA (n)	11/10		11/10		11/10	
Protecting the eye from external factors						
Yes (n)	45/53	NS	36/42	NS	29/39	NS
No (n)	27/19		36/30		43/33	
Using the old eye glasses						
Yes (n)	16/27	<0.05	13/19	NS	12/18	NS
No (n)	45/27		46/35		46/35	
NA (n)	11/18		13/18		14/19	
Knowledge of important tips for protecting the eye						
Yes (n)	67/6	<0.001	64/6	<0.001	65/6	<0.001
No (n)	5/66		8/66		7/66	

NA, not available, NS, not significant; VAS, visual analog scale.
* The intervention and control groups were composed of 72 individuals each.
† Options were Never (0), Somewhat (1), Moderate (2), Much (3), and Too Much (4).

Table 3
Differences Between Groups on Activities Related to Communication, Breathing, Eating and Drinking, and Elimination*

	Postoperative Day 1		Postoperative Day 3		Postoperative Day 10	
	Mean (Intervention/Control)	Significance	Mean (Intervention/Control)	Significance	Mean (Intervention/Control)	Significance
Communication						
Were these activities worrisome to you? (range 0-1)						
Communicating with people†	NA		0.24/1.14	NS	0.10/0.06	NS
Making phone calls†	0.32/0.35	NS	0.32/0.39	NS	0.17/0.03	NS
Did you have any knowledge on situations that require calling the doctor/going to hospital?						
Yes (n)	65/7		69/6		68/6	
No (n)	7/66	<0.001	3/66	<0.001	4/66	<0.001
Breathing						
Were these activities/situations worrisome to you?† (Range 0-1)						
Sudden sneezing	0.25/0.03	<0.005	0.21/0.00	<0.000	0.14/0.00	<0.005
Sudden coughing	0.32/0.01	<0.005	0.17/0.00	<0.005	0.13/0.03	<0.005
Eating and drinking						
How disturbing were these situations for you?† (range 0-1)						
Fear of having nausea and vomiting	0.11/0.00	<0.05	0.07/0.00	<0.05	0.06/0.00	NS
Eating by yourself	0.03/0.014	NS	0.00/0.00	NS	0.00/0.00	NS
Elimination						
How difficult were to resume activities listed below?† (range 0-1)						
Going to the bathroom by yourself	0.25/0.18	NS	0.08/0.14	NS	0.03/0.07	NS

NA, not available, NS, not significant.
* The intervention and control groups were composed of 72 individuals each.
† Options were Never (0), Somewhat (1), Moderate (2), Much (3), and Too Much (4).

Table 4
Differences Between Groups on Parameters of Washing and Dressing, Controlling the Body Temperature, Mobilization, Working, Sexuality, and Dying*

	Postoperative Day 1		Postoperative Day 3		Postoperative Day 10	
	Mean (Intervention/Control)	Significance	Mean (Intervention/Control)	Significance	Mean (Intervention/Control)	Significance
Washing and dressing						
How difficult were to resume activities listed below?† (range 0-2)						
Caring for the affected eye	NA		0.67/1.49	<0.001	0.43/1.14	<0.001
Washing your face	0.81/1.40	<0.05	0.75/1.26	<0.001	0.46/0.80	<0.001
Dressing up and undressing	0.23/0.49	<0.05	0.22/0.35	NS	0.18/0.26	NS
Bathing	NA		1.04/1.88	<0.001	0.91/0.48	<0.005
Did you have any knowledge on right time to resume activities listed below?						
Bathing						
Yes (n)	62/4	<0.001	64/7	<0.001	66/10	<0.05
No (n)	10/68		8/65		6/62	
Washing face						
Yes (n)	52/3	<0.001	53/3	<0.001	55/3	<0.001
No (n)	20/69		19/69		17/69	
Controlling body temperature (range 0-2), worrying about having a high temperature						
Yes (n)	0.18/0.02	<0.005	1.19/0.03	<0.005	0.11/0.03	<0.01
No (n)						
Mobilization (range 0-1)						
How much these activities worrisome to you?†						
Bending over	0.51/0.18	<0.001	0.39/0.05	<0.001	0.28/0.03	<0.001
Doing household chores	0.30/0.00	<0.005	0.22/0.00	<0.005	0.15/0.00	<0.05
Picking up heavy objects	0.44/0.08	<0.001	0.23/0.02	<0.005	0.18/0.00	<0.005
Did you have any knowledge on which activities to restrict?						
Yes (n)	63/1	<0.001	63/2	<0.001	63/2	<0.001
No (n)	9/71		9/70		9/70	
Working and playing						
To what extent did you limit activities listed below?† (range 0-1)						
Walking by yourself	0.06/0.25	NS	0.04/0.08	NS	0.04/0.02	NS
Watching TV	0.37/0.41	NS	0.34/0.27	NS	0.14/0.09	NS
Expressing sexuality (range 0-1)						
How bothering was your appearance to you?†	0.10/0.13	NS	0.07/0.08	NS	0.03/0.01	NS
Sleeping						
How much these activities worrisome to you?(range 0-2)						
Harming the affected eye during sleeping†	1.15/1.50	NS	0.76/1.18	<0.05	0.46/0.78	NS
Falling asleep†	0.40/0.61	<0.05	0.30/0.43	NS	0.26/0.43	NS
Did you have any knowledge on right position to sleep?						
Yes (n)	71/46	<0.05	72/48	<0.05	71/48	<0.05
No (n)	1/26		0/24		1/24	
Death and dying						
Have you ever worried that something might go wrong with your affected eye?						
Yes (n)	41/43	NS	41/31	NS	37/38	NS
No (n)	31/29		31/41		35/34	

NA, not available; NS, not significant.
* The intervention and control groups were composed of 72 individuals each.
† Options were Never (0), Somewhat (1), Moderate (2), Much (3), and Too Much (4).

Communication

After cataract surgery, a decrease in patients' visual function, using a phone, and establishing communication may become troublesome.[4,31] Recognition of abnormal changes by patients is particularly important to prevent unnecessary returns to the hospital. In addition, patients have been advised to consult their physician or call the hospital in case of complications such as constant pain, nausea and vomiting, or sudden loss of vision.[25,29] No differences were found between the groups for the items "communicating with others" and "making phone calls" in this study ($P > .05$). However, the difference in knowledge related to symptoms required to call the physician was significant between groups ($P < .001$) which may support the influence of discharge education in our study.

Breathing

Activities such as sneezing and coughing that increase intraocular pressure enhance the risk of complications.[24] Operations performed with general anesthesia particularly can lead to respiratory complications and increase the risk of breathing problems.[32] In our study, the patients in the intervention group were concerned about sneezing and coughing, which could be linked to discharge education as the control group was not aware of the danger, while patients in the intervention group had been warned and thus were more concerned.

Eating and Drinking

Patients' concerns usually decrease 24-48 hours after cataract surgery.[33,34] Since vomiting poses a risk of increasing intraocular

pressure,[24] this subject was shared with the patients in the intervention group, and the patients in this group were found to be concerned about nausea and vomiting. No differences were found in patients' concerns about eating and drinking ($P > .05$). After cataract surgery, there are no diet-related limitations for patients. They are encouraged to return to their regular diet. Sufficient intake of fruits and vegetables is valuable to decrease the risk of constipation.[24]

Elimination

Constipation and straining are activities that increase the intraocular pressure and the risk of complications.[24] The elderly tend to skip meals, and their nutritional status may not be at a satisfactory level,[35] thus having elimination-related problems is very likely. No significant difference was found in the parameters (e.g., going to the bathroom, defecation, restricting hydration) concerning elimination activity between the groups in this study ($P > .05$). Although patients did not have any problems concerning nutrition, it was found that some restricted their hydration. While the definitive cause of this behavior is not known, not being a burden on others, having no one at the home to take care of them, or not remembering to drink fluids were considered as possible reasons.

Washing and Dressing

In the postoperative period, it is recommended that patients clean their eyes with the right technique and take a bath keeping their heads back after eye dressings have been removed to avoid exposing the eye to chemicals such as soap and shampoo.[25] The difference between the groups was significant in caring for the affected eye ($P < .001$) and about the difficulties in bathing on the third ($P < .001$) and 10th ($P < .001$) postoperative days. Also, washing the face was significant on all days, while dressing was found to be significant only on the first postoperative day. It was determined that patients face serious challenges during the postoperative period in relation to eye care, washing their face, and bathing. The difference was significant for knowledge related to bathing and points to consider during bathing between the two groups on all postoperative days. This result may be related to discharge education or lack thereof.

The opportunity to ask questions during the individual education provided to the intervention group may have contributed to their recovery by comforting them in the postoperative period. The patients in the control group confront more difficulties related to personal hygiene. Since patients may forget most of the details explained to them,[36] it is possible that the control group patients may have overlooked instructions provided to them before leaving the hospital.

Controlling Temperature

High fever is not an expected symptom in patients who undergo cataract surgery. Increases in body temperature can be experienced in the case of illnesses and infection· When concerns about high fever in the postoperative period were examined, differences were significant between groups. Although high fever is a rare condition after cataract surgery, patients in the intervention group were more knowledgeable about the consequences that may occur postoperatively.

Mobilization

Regular activity is important for people to maintain their health. The general physical activity of people, particularly long-term and specific types of physical activity (eg, walking, cycling, etc.) reduce the risk of age-related cataract development.[37] After cataract surgery, patients are advised to limit activities which may increase intraocular pressure.[24,29] The difference in the concern levels of the intervention and control group patients in terms of performing certain activities (e.g., bending down, doing housework, lifting weight) was significant. Overall, the intervention group was more knowledgeable of restrictions which may be related to the fact that they received written as well as verbal discharge instructions.

Working and Playing

Watching TV or reading books without straining the eyes does not have any negative impacts after cataract surgery.[25] Owing to the low education levels of patients in both groups, it was assumed that reading and using a computer was limited. Only the difference in concerns regarding walking was significant between the groups on the first postoperative day, and this diminished on the following days. This result may reflect the influence of education.

Expressing Sexuality

Cataract surgery does not have any restrictions that hinder sexual activity. When patients feel comfortable, they can perform sexual activity.[29] In addition, sexual activity does not cause a great change in the eye or the general appearance of patients. In this study, it was considered that patients might find their own appearance disturbing; however, no differences were found between groups for items related to expressing sexuality. Mean scores obtained on items related to expressing sexuality were close to 0.0. This result could be due to the fact that patients did not want to share information on this subject. Since sexuality is not a concept easily expressed and discussed in many cultures, it is known that, in studies, both patients and health care staff refrain from asking questions on sexuality-related issues.[34] The competency and approach of the nurses on this issue is fundamental.

Sleeping

In one study, it was determined that 30.6% of the patients suffered from sleeplessness after the operation, and this problem was clearly reduced by the fourth postoperative week.[10] In some studies, it is stated that extreme concerns lead to sleeplessness, and various factors such as anesthetic substances and pain increase sleeplessness in patients.[6] When the concerns about harming the eye during sleep were questioned, it was seen that the difference was not significant on the first and 10th days between groups but was significantly different on the third postoperative day. This can be explained by the eye patch being used on the first day, and by the 10th day, there was sufficient recovery to lessen concerns. However, groups did not differ with regard to falling asleep on the first day. Knowledge related to positioning for sleep after surgery to protect the eye was significantly lower for the control group throughout the follow-up. These differences may reflect less information given to the control group on discharge and no time devoted to patient questions.

Death and Dying

Although the rate of anesthesia-related complications in cataract surgery performed under local anesthesia is low, an increase in the intraocular pressure and relocation of the lens are the most common complications.[24] Patients feel concerned before and after elective surgery; therefore, discharge education provided by nurses is an important issue[38] and could greatly influence patients' recovery. In

this study, patients in both groups did not have any concerns regarding things that may go wrong ($P > .05$). This could be due to the fact that cataract surgery is a very common operation performed in outpatient settings.

Conclusions and Implications for Practice

Using a Model of Living in the discharge education of cataract patients and following them using a structured checklist was found to be an effective intervention. This model can be efficiently used for providing postoperative education to day surgery patients and assessing their compatibility with daily activities. Use of discharge education that is personal (face-to-face) and contains both written and pictorial material was also found to be an efficient practice. Using this framework with different surgical patient groups could help enhance patient outcomes.

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