ORİJİNAL ARAŞTIRMA ORIGINAL RESEARCH

DOI: 10.5336/nurses.2021-82360

The Use of Visual Material on Sleep Hygiene in Improving Sleep Quality in Patients Prior to Colorectal Surgery: A Randomized Controlled Study

Kolorektal Cerrahi Öncesi Hastalarda Uyku Kalitesini Artırmada Uyku Hijyeni Konusunda Görsel Materyal Kullanımı: Randomize Kontrollü Bir Çalışma

Seda Cansu YENİĞÜN[a], Seher ÜNVER[b]

[a]Department of Surgical Nursing, Akdeniz University Kumluca Faculty of Health Sciences, Antalya, Türkiye
[b]Department of Surgical Nursing, Trakya University Faculty of Health Sciences, Edirne, Türkiye

This study was presented as orally at the 3rd International and 11th National Congress of Turkish Surgical and Operating Room Nurses, 3-6 October 2019, İzmir, Türkiye.
This study was prepared based on the findings of Seda Cansu Yeniğün's thesis study titled "The effect of sleep hygiene visual material use on sleep quality of patients before colorectal surgery" (Edirne: Trakya University; 2019).

ABSTRACT Objective: Surgical intervention takes the first place in the treatment of colorectal cancer, and anxiety, fear and concern in the preoperative period may cause difficulty in meeting the sleep requirements of these patients. This study is to investigate the effect on patients, who will undergo colorectal surgery, of providing information on sleep quality through the use of sleep hygiene visual material. **Material and Methods:** This randomized controlled and quasi-experimental study was conducted on 62 patients with 31 patients in study group and 31 controls who were scheduled to undergo colorectal surgery in the general surgery department of a university hospital in Türkiye between January 25,2018 and June 28, 2018. Data were collected using patient identification form, Richards-Campbell Sleep Questionnaire, and sleep hygiene visual material. Patients in both groups who were hospitalized 2 days prior to surgery were visited by the researcher in their rooms and verbally informed about sleep hygiene. Sleep hygiene visual material was used for instructing the patients in the study group. Sleep quality was evaluated on the day before surgery and on the day of operation. **Results:** In this study, both groups were informed about sleep hygiene and this process was was significantly higher in improving the sleep quality of patients in both groups on the morning of the operation (p=0.000; p=0.000, respectively). The evaluation of the study group on the morning of the operation, found that the mean sleep quality total scale score of the study group was significantly higher when compared with that of the control group (p=0.043). **Conclusion:** In the study, it was found that using visual material of sleep hygiene in informing patients about sleep hygiene in the preoperative period contributed positively to improving sleep quality of the patients. We recommend the use of visual materials to help the patient remember information.

Keywords: Colorectal surgery; perioperative nursing; sleep; sleep hygiene

ÖZET Amaç: Kolorektal kanser tedavisinde ilk sırada cerrahi girişimler yer almakta olup, ameliyat öncesi dönemde hastalarda oluşan anksiyete, korku ve endişe, hastaların uyku gereksinimlerini karşılamada zorlanmalarına neden olabilmektedir. Kolorektal cerrahi girişim geçirecek olan hastalara, uyku hijyeni görsel materyali kullanılarak yapılan bilgilendirmenin, hastaların uyku kalitesi üzerine etkisini incelemektir. **Gereç ve Yöntemler:** Randomize kontrollü ve yarı deneysel nitelikte olan bu araştırma, Türkiye'de bir üniversite hastanesinin genel cerrahi servisinde 25 Ocak-28 Haziran 2018 tarihleri arasında kolorektal cerrahi geçirmesi planlanan 62 hastada (çalışma grubu=31 hasta; kontrol grubu=31 hasta) yürütüldü. Verilerin toplanmasında hasta tanıtım formu, Richards-Campbell Uyku Ölçeği, ve uyku hijyeni görsel materyali kullanıldı. Ameliyattan 2 gün önce servise yatışı yapılan her 2 gruptaki hastalar araştırmacı tarafından ameliyat öncesi gün odalarında ziyaret edildi ve sözel anlatım yoluyla uyku hijyenine yönelik bilgilendirildi. Çalışma grubundaki hastaların bilgilendirilmesinde Uyku Hijyeni Görsel Materyali kullanıldı. Hastaların uyku kaliteleri, ameliyat öncesi gün ve ameliyat sabahında değerlendirildi. **Bulgular:** Bu çalışmada, her 2 gruba da uyku hijyeni hakkında bilgi verilmiş ve bu sürecin ameliyat sabahı her 2 gruptaki hastaların uyku kalitesini iyileştirmede istatistiksel olarak anlamlı olduğu bulunmuştur (p=0,000; p=0,000, sırasıyla). Ameliyat sabahı yapılan değerlendirmede, çalışma grubunun ortalama uyku kalitesi toplam ölçek puanı istatistiksel olarak anlamlı olduğu bulunmuştur (p=0,043). **Sonuç:** Araştırmada, hastaların ameliyat öncesi dönemde uyku hijyenine yönelik bilgilendirilmesinde uyku hijyeni görsel materyalinin kullanılmasının, hastaların uyku kalitesinin artırılmasına olumlu katkı sağladığı belirlendi. Hastalara verilecek uyku hijyeni bilgilendirmelerinde, bilgilerin hatırlanmasına yardımcı olmak amacıyla görsel materyallerin (uyku hijyeni görsel materyali gibi) kullanılmasını önermekteyiz.

Anahtar Kelimeler: Kolorektal cerrahi; perioperatif hemşirelik; uyku; uyku hijyeni

Correspondence: Seda Cansu YENİĞÜN
Department of Surgical Nursing, Akdeniz University Kumluca Faculty of Health Sciences, Antalya, Türkiye
E-mail: seda.cansu.yenigun@gmail.com

Peer review under responsibility of Turkiye Klinikleri Journal of Nursing Sciences.

Received: 16 Feb 2021 ***Received in revised form:*** 06 Jun 2021 ***Accepted:*** 08 Jun 2021 ***Available online:*** 17 Jun 2021

Cancer is a health problem that has steadily increased worldwide, with colorectal cancers the most common form of malignancy.[1] In developed countries such as the United States, the incidence of colorectal cancer for those under the age of 50 is reported to have increased by 13%.[2] According to the GLOBOCAN (Global Burden of Cancer Study) 2018 data, colorectal cancers are the third most common cancer types (1.8 million) and cancer-related deaths account for the second most common cause of overall mortality (881,000).[3] In Türkiye, the colorectal cancer death rate is 58.2% for men and 41.8% for women according to 2018 data of the Statistics Institute of Türkiye.[4]

Surgical interventions are usually first-line treatments for patients with colorectal cancers, and include removal of the area of the colon where the tumor is located, and stoma formation.[5] Patients may often view these interventions with trepidation, and considerable anxiety.[6] In the literature, it is reported that most patients experience anxiety and fear due to factors such as the prospective use of anesthesia, previous negative surgical intervention experiences and uncertainty about the results of the surgical intervention.[7]

It has been reported that anxiety experienced in the preoperative period is challenging for patients trying to meet their sleep requirements and may cause an 80% reduction in total sleep time at night.[8] Due to increased anxiety and decreased sleep time, the risk of complications may increase after surgery, and the recovery and discharge time of patients may prolong.[9,10] Reducing anxiety and improving sleep quality in the preoperative period can be helpful in achieving a successful surgical intervention and can shorten the recovery period after surgery.[11] Therefore, it is important that nurses evaluate patients' night sleep status and take initiatives to combat existing problems, improve sleep quality and exert a positive effect on the healing process in patients.[10,12,13]

The first nursing interventions to improve sleep quality include controlling the environmental factors affecting the patient and applying sleep hygiene principles.[13-15] The concept of sleep hygiene was first used by Peter Hauri and encompasses those habits that help individuals to achieve sleep quality.[16,17] This concept is defined as the development of those behaviors that facilitate falling asleep (e.g. being active during the day, maintaining a regular sleep/wake rhythm) and avoiding behaviors that make it difficult to fall asleep (e.g. smoking, caffeine intake in the evening and taking naps during the day).[17,18] It is reported that patients can be helped to improve their sleep quality through information on sleep hygiene behaviors.[19,20] In the literature, Soleimani et al. (2016) reported that the effect of sleep hygiene training on sleep quality in patients undergoing hemodialysis treatment was effective in improving sleep quality.[21] In a study of Uğurlu et al. (2018) conducted to determine the effect of information given to patients in a psychiatric ward with respect to the treatment of sleep problems, it was found that this training significantly improved the sleep status of the patients.[22]

Although studies have been conducted on the sleep quality of patients hospitalized in various wards in the literature, studies evaluating the sleep quality of patients, prior to colorectal surgery are limited.[23,24] The purpose of this study is to investigate the effect of providing information on sleep quality through the use of sleep hygiene visual material on patients, who will undergo colorectal surgery.

Research Hypothesis

Using sleep hygiene visual material to provide information to patients, who will undergo colorectal surgery, improves sleep quality.

MATERIAL AND METHODS

STUDY DESIGN AND SAMPLING

This quasi-experimental study was conducted on 62 patients (study group, n=31; control group, n=31), who were scheduled to undergo colorectal surgery in the general surgery department of a university hospital in Türkiye between January 25, 2018 and June 28, 2018. The distribution of the patients who met the criteria for inclusion in the study was done by simple randomization method. Accordingly, the protocol numbers of the patients in the order of admission to the ward were written in the list and the patients with odd protocol numbers were included in the control group and those with even protocol numbers were in-

cluded in the study group. In order to prevent the patients in the study and control groups to be affected from each other, the patients were hospitalized in single bed rooms according to the protocol numbers. The sample size of the study was based on the standard deviation value (SS=±7.12) of the Richards-Campbell Sleep Questionnaire used in the study "The effect of enhancing environmental factors on the quality of patients' sleep in a cardiac surgical intensive care unit" conducted by KaramanÖzlü and Özer (2015), with a 95% confidence level, and a 0.5% level of tolerance, with 31 patients assigned to each group. Of the 62 patients, 31 were in the study group and 31 in the control group. The data collection steps of the study are set out in the sample selection flow diagram (Figure 1).[25]

Inclusion criteria were: (a) 18-65 years of age, (b) scheduled for colorectal surgery, (c) no previous stoma, (d) being literate, (e) voluntary participation, (f) being conscious and cooperative (g) no history of psychiatric problems, (h) no history of sleep disturbances, and (h) staying in a single room.

DATA COLLECTING TOOLS

The patient identification form, RCSQ and sleep hygiene visual material were used for data collection.

In order to determine the sociodemographic, disease and sleep characteristics of the patients, the patient identification form was used by the researchers in accordance with the literature and consisted of 9 questions.[26,27]

The RCSQ was developed by Richards in 1987 to evaluate sleep conditions; and the Turkish reliability and validity study was conducted by Karaman Özlü and Özer in 2015.[28] It has been reported in the literature that this scale is used for the evaluation of sleep quality in patients scheduled to undergo colorectal surgery and can be used to determine sleep quality.[29] The questionnaire consists of six items that assess the time to fall asleep, the frequency of waking up during sleep, the waking time length between two periods of sleeps, the depth of night sleep, the quality of sleep, and noise level in the environment, with each item evaluated on a scale of 0 to 100. The total score is evaluated with respect to 5 items, with the 6th item, an evaluation of noise levels in the environment, excluded from the total score evaluation. The questionnaire is scored by dividing the total score obtained from the first five items by 5. When scoring, a score of 0-25 indicates "very poor sleep" and a score of 76-100 indicates "very good sleep". The scale score changes in direct proportion to the quality of sleep, - the higher the score, the higher the quality of sleep.[25] The Cronbach α value was found to be 0.82 in the study in which the original scale was developed, and 0.91 in the research of Karaman Özlü and Özer.[28] In this study, the Cronbach α value of the scale was calculated as 0.70.

Visual material in relation to sleep hygiene was prepared by researchers based on the literature on the subject and on the opinions of five different experts (2 general surgery nurses, 1 neurology nurse, 1 psychiatric nurse and 1 cardiovascular supervisory nurse).[26,30] The material contained 10 information items on sleep hygiene principles. Each information item was written on the visual material leaflets and prepared in the form of a colored 10-leaflet daisy shape with a size of 40cm (width) x 40cm (length) (Figure 2).

The 10 information items on the sleep hygiene principles in the leaflets are as follows:

"If you have pain, always inform your nurse:" The purpose of this information is to prevent the patient from focusing on pain and provide pain management.

"Do not drink coffee at least 4 hours before sleep:" The purpose of this information is to prevent caffeine in the coffee from keeping awake and to ensure that patients do not consume coffee before going to sleep.

"Do not spend most of your time in bed after waking up from sleep:" The purpose of this information is to inform patients that continuing sleep to rest is not relaxing, and it will disrupt sleep patterns.

"Take a short walk when you feel well during the day:" The purpose of this information is to help with serotonin release through regular physical activity and to help facilitate sleep.

"Keep your daytime sleep as short as possible and try not to sleep during the day:" The purpose of

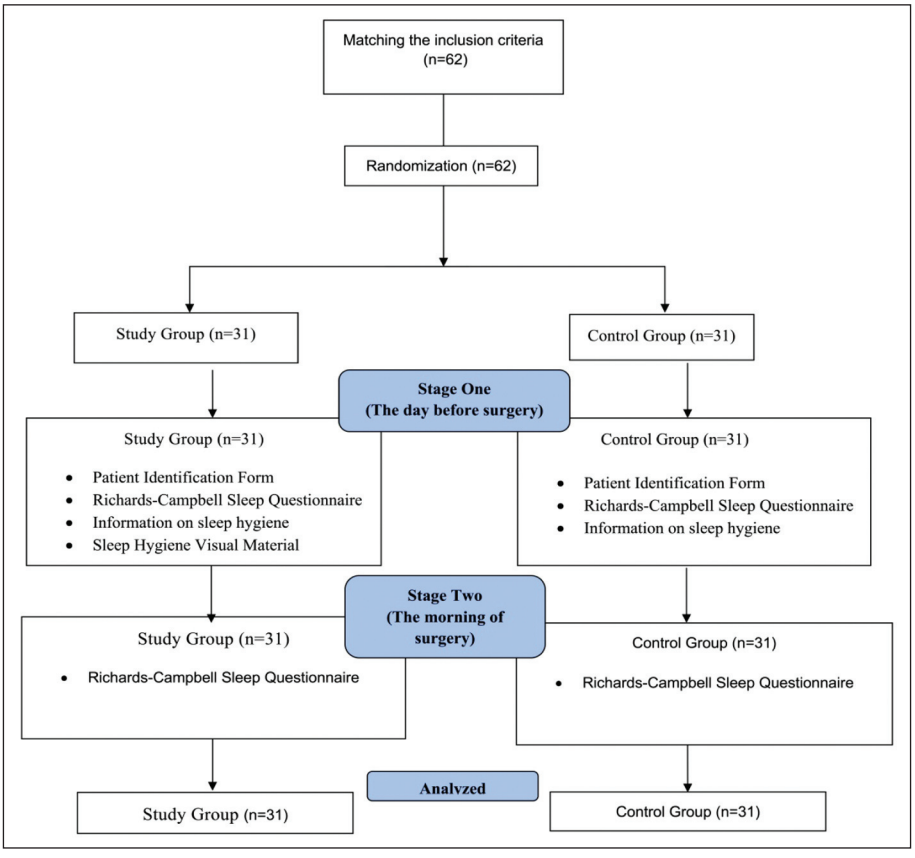

FIGURE 1: Randomization Flow Diagram.

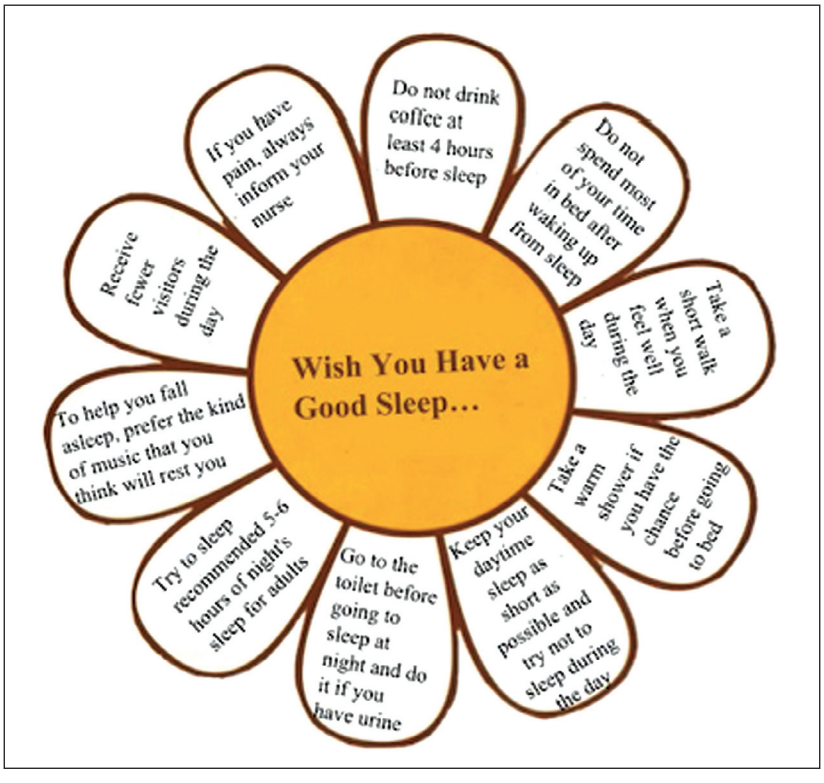

FIGURE 2: Sleep Hygiene Visual Material.

this information is to help patients get better night sleep by restricting their napping.

"Receive fewer visitors during the day:" The purpose of this information is to inform patients that the crowded environment may disrupt the ventilation of the room and lead to increased stress levels.

"To help you fall asleep, prefer the kind of music that you think will rest you:" The purpose of this information is to help patients relax and sleep with the influence of their favorite music.

"Try to sleep for 5-6 hours which is recommended as night's sleep for adults:" The purpose of this information is to allow patients to go to the toilet before sleeping at night and to prevent interrupting night's sleep.

"Take a warm shower if you have the chance before going to bed:" The purpose of this information is to help the patient to relax physically and to facilitate sleep.

The distribution of the patients who met the criteria for inclusion in the study was done by simple randomization method. Accordingly, the protocol numbers of the patients in the order of admission to the ward were written in the list and the patients with odd protocol numbers were included in the control group and those with even protocol numbers were included in the study group. In order to prevent the patients in the study and control groups to be affected from each other, the patients were hospitalized in single bed rooms according to the protocol numbers.

STUDY PROTOCOL AND PRACTICE

Patients in both groups, who were scheduled for colorectal surgery and underwent an open diet for gastrointestinal system preparation as per preoperative protocol and were admitted to the general surgery wards two days before the surgery, were visited by the researcher in their room on the morning of the preoperative day. The purpose and method of the study were explained to the patients, with verbal and written consent obtained from those, who agreed to participate in the study. Data collection forms were then filled in over the course of approximately 10-15 minutes by using the patient identification form to gather data about the individual characteristics of the patients, and through the use of the RCSQ to evaluate the quality of night sleep in the ward.

After filling in the data collection forms, the patients in the study group were, over the course of approximately 10 minutes, verbally informed about sleep hygiene principles using the sleep hygiene visual material noted on each sheet. The material was then affixed to the wall opposite the patient's bed or to the side of the cabinet in the room so that it remained within the area visible to the patient when they lay on their bed. In this way, patients would remember the information presented to them as the material would be visible to them throughout the day. The patients in the control group were verbally informed about sleep hygiene over the course of approximately 10 minutes and no visual material was provided. It was explained to the patients in both groups that their quality of sleep would be reevaluated using the same scale the following morning (the morning of the day of surgery).

Patients in both groups were re-visited by the researcher in their wards on the morning of the day of surgery and the quality of their night's sleep was evaluated in about 5-10 minutes using the Richards-Campbell Sleep Scale.

ETHICAL APPROACH

In order to conduct the study, ethical permission number 19/21 (8.11.2017) was obtained from the Trakya University Faculty of Medicine Dean's Scientific Research Ethics Committee and institution permission was obtained from the hospital management (Number: 34445) where the application would be carried out. Permission was obtained via e-mail from the author who made validity and reliability study for the use of the questionnaire. The purpose of the study, content and application steps were explained to the ward managers, ward supervisor nurse, ward nurses and patients who were eligible for participation in the study. The patients were informed that the information obtained from them would be kept confidential, that they could be used only for research purposes, that they could leave the study at any time and that verbal and written consent of those who agreed to participate in the study was obtained.

DATA EVALUATION

The data obtained from the study were analyzed by using SPSS (Statistical Package for Social Sciences) for Windows 20.0 program. Mean, standard deviation, lowest, highest, frequency and ratio values were used in descriptive statistics of the data. The distribution of variables was measured by Kolmogorov-Simirnov test. Independent sample t test and Mann-Whitney U tests were used for the analysis of quantitative independent data. Paired samples t test and Wilcoxon test were used in the analysis of quantitative dependent data. Chi-square test was used for the analysis of qualitative independent data and Fisher exact test was used when the chi-square test conditions were not met. Statistical significance was set at $p<0.05$.

RESULTS

The mean age of the participants was 52.6±12.3 years; 53.2% were male, 82.3% were married, 30.6% were university graduates, 58.1% had no chronic disease and 95.2% had no history of colorectal surgery. When the data were examined, it was found that the descriptive characteristics of the study and control group patients were similar and that there was no statistically significant difference between the groups ($p>0.05$) (Table 1).

It was found that the mean total score of sleep quality obtained from the preoperative morning evaluation of the patients in the study group was 46.0±10.6 and that this increased to 77.1±8.6 on the morning of the operation, and that this increase was statistically significant (t=-4.862, p=0.000) (Table 2).

It was found that the mean total score of sleep quality obtained from the preoperative morning evaluation of the patients in the control group was 45.2±11.1 and increased to 75.0±7.3 on the morning of the operation, and that this increase was statistically significant (t=-4.863, p=0.000) (Table 2).

The evaluation of the study group on the morning of the operation, found that the mean sleep quality total scale score of the study group was significantly higher when compared with that of the control group (t=-2.027, p=0.043) (Table 2).

DISCUSSION

Although surgical interventions applied in the treatment of colorectal cancers aim to maintain life and increase the quality of life, it can lead to loss of function, changes in body image and anxiety in individuals.[31] Due to increased anxiety and decreased sleep time, the risk of complications may increase after surgery, and the recovery and discharge time of patients may be prolonged.[9,10] In this study, it was found that the sleep quality of the study group, which was informed about sleep hygiene through the use of sleep hygiene visual material, was statistically higher than that of the control group, (Table 2). In the literature, in studies conducted on patients and healthy individuals, it has been reported that information about sleep hygiene is effective in improving sleep quality.[22,32] In 2017, Özlü investigated the effect of controlling certain environmental factors on night sleep in the cardiovascular surgery intensive care unit.[19] The average sleep quality in RCSQ was 66.6 in the study group, where environmental factors were kept under control, with patients in the control group having an average sleep quality of 44.4 in RCSQ.

In this study, it was found that the sleep duration of patients, who were informed about sleep hygiene through the use of visual material in the preoperative period, was significantly longer than that of the patients in the control group, (Table 2). This implies that whenever the patient wakes up during the night, he or she can get back to sleep immediately.[19] Similarly, in the literature, it has been reported that information about sleep hygiene is effective in increasing nighttime sleep duration.[20,33] O'Donnell and Driller reported that training on sleep hygiene, which in their study included information for female athletes about a suitable sleeping environment and remarks about avoiding stimulants, such as caffeine prior to sleep, were effective in increasing sleep duration.[20] Gellis et al. found that more than half (58.2%) of individuals, who adhered to sleep hygiene principles, enjoyed both good sleep and improved sleep quality.[33] These results indicate that interventions in relation to sleep hygiene and sleep quality increase the quality and duration of sleep experienced by patients. In the study, it

TABLE 1: Descriptive characteristics of the patients in the study and control groups.

	Control group (n=31)	Study group (n=31)	Total (n=62)	p value	t/X²
	Mean±SD	Mean±SD	Mean±SD		
Age	54.2±11.7	51.1±12.8	52.6±12.3	0.303	-1.031
	n (%)	n (%)	n (%)		
Gender					
Female	16 (51.6)	13 (41.9)	29 (46.8)	0.445	0.583X²
Male	15 (48.4)	18 (58.1)	33 (53.2)		
Marital status					
Single	6 (19.4)	5 (16.1)	16.1 (11.0)	0.740	0.111X²
Married	25 (80.6)	26 (83.9)	51 (82.3)		
Educational status					
Primary school	12 (38.7)	6 (19.4)	25 (40.3)	0.063	7.965X²
High school	11 (35.5)	7 (22.6)	18 (29.0)		
University	5 (16.1)	14 (45.2)	19 (30.6)		
Chronic disease					
Present	13 (41.9)	13 (41.9)	26 (41.9)	1.000	0.000X²
Absent	18 (58.1)	18 (58.1)	36 (58.1)		
History of colorectal surgery					
Present	3 (9.7)	0 (0.0)	3 (4.8)	0.238	3.153X²
Absent	28 (90.3)	31 (100.0)	59 (95.2)		

[m]Mann-Whitney u Test; x² Chi-Square test (Fisher test); SD: Standard deviation.

was found that informing patients about sleep hygiene during the preoperative period through the use of visual material positively contributed to an improvement in the sleep status of these patients. In line with this result, the hypothesis of the study - "using sleep hygiene visual material to provide information to patients undergoing colorectal surgery has an effect on improving the sleep quality" - was confirmed. In this study, both groups were informed about sleep hygiene, and this process was found to be statistically significant in improving the sleep quality of the patients in both groups on the morning of the operation (Table 2). Wong et al. (2017) reported that stimulation control, sleep restriction, sleep hygiene and relaxation training as a result of behavioral treatment reduced the severity of insomnia. When the results were examined, it was concluded that verbal information about sleep hygiene is effective in improving the sleep quality of patients.[34]

LIMITATIONS

There are certain limitations to this study. The first limitation is that there was no blinding. The researcher nurse knew the study and control groups and the scales were filled by the same researcher. Filling the scale by an independent researcher who did not know the groups would support the elimination of suspicion of bias. The second limitation of the study is that it was not recorded whether patients were actually practicing the given information about sleep hygiene during the day. The third limitation of the study is that there was no record of any other practices by the patients to facilitate sleep during the day. The fourth limitation is that all patients were placed in a single room. This limits the generalization of the study results for patients staying in multiple rooms.

CONCLUSION

Verbal information using visual material of sleep hygiene is effective in improving sleep quality of patients who are scheduled to undergo colorectal surgery.

CLINICAL RECOMMENDATIONS

The visual material used in the study is a reminder of the practices that the patients can see from the distance where they lie down and which they should per-

TABLE 2: Comparison of mean scores of Richard-Campbell Sleep Questionnaire between the groups.

	Control group (n=31) Mean±SD	Study group (n=31) Mean±SD	p value	Test
Sleep depth				
Preoperation-morning	45.3±12.7	47.1±13.1	0.498	-0.678[m]
Operation-morning	72.6±11.8	73.1±11.0	0.746	-0.324[m]
Intragroup change p	p=**0.000**w /-4.768	p=**0.000**[w]/-4.609	0.733	-0.341[m]
Sleep latency				
Preoperation-morning	46.8±15.3	47.1±11.5	0.972	-0.036[m]
Operation-morning	75.5±8.3	74.7±11.5	0.988	-0.014[m]
Intragroup change p	p=**0.000**[w] /-4.722	p=**0.000**[w] /-4.799	0.575	-0.561[m]
Number of awakenings				
Preoperation-morning	44.2±12.0	46.5±11.8	0.267	-1.110[m]
Operation-morning	75.5±8.8	76.6±8.5	0.644	-0.462[m]
Intragroup change p	p=**0.000**[w] /-4.872	p=**0.000**[w] /-4.879	0.579	-0.555[m]
Returning to sleep				
Preoperation-morning	43.9±12.2	44.8±11.1	0.704	-0.379[m]
Operation-morning	75.8±7.5	79.8±7.6	**0.017**	-2.380[m]
Intragroup change p	p=**0.000**[w] /-4.804	p=**0.000**/-4.874	0.418	-0.810 m
Sleep quality				
Preoperation-morning	45.6±13.4	44.5±11.3	0.400	-0.842[m]
Operation-morning	75.5±7.3	78.5±10.4	**0.027**	-2.208[m]
Intragroup change p	p=**0.000**[w] /-4.803	p=**0.000**[w] /-4.850	0.254	-1.141[m]
Noise				
Preoperation-morning	44.8±23.9	47.4±25.8	0.675	-0.420[m]
Operation-morning	59.4±22.5	57.4±23.3	0.887	-0.142[m]
Intragroup change p	p=**0.000**[w] /-3.431	p=**0.000**[w] /-2.135	0.316	-1.003[m]
Total RCSQ score				
Preoperation-morning	45.2±11.1	46.0±10.6	0.762	-0.304[t]
Operation-morning	75.0±7.3	77.1±8.6	**0.043**	-2.027[t]
Intragroup change p	p=**0.000**[E] /-4.863	p=**0.000**[E] /-4.862	0.811	-0.240[t]

[tt] test; [m]Mann-Whitney u Test; [w]Wilcoxon test; [E]Paired sample t test; RCJQ: Richard-Campbell Sleep Questionnaire; SD: Standard deviation.

form in order to get a better sleep as they see the material during the day. In addition, because of the low cost of this visual material and being easy to use by nurses, it can be stated that they would be beneficial in improving sleep quality of the patients. In line with these results; in order to improve the sleep quality of patients who will undergo colorectal surgery, we recommend providing verbal sleep hygiene information to the patients and supporting this information with visual material that will be used as a reminder by keeping them in their rooms all day long. In addition, it will be useful to apply the sleep hygiene visual material in different sample groups and research designs with high level of evidence in order to investigate the applicability of the visual hygiene material in all surgical patients.

Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Seda Cansu Yeniğün, Seher Ünver;* ***Design:*** *Seda Cansu Yeniğün, Seher Ünver;* ***Control/Supervision:*** *Seher Ünver;* ***Data Collection and/or Processing:*** *Seda Cansu Yeniğün, Seher Ünver;* ***Analysis and/or Interpretation:*** *Seda Cansu Yeniğün, Seher Ünver;* ***Literature Review:*** *Seda Cansu Yeniğün;* ***Writing the Article:*** *Seda Cansu Yeniğün, Seher Ünver;* ***Critical Review:*** *Seda Cansu Yeniğün, Seher Ünver;* ***References and Fundings:*** *Seda Cansu Yeniğün, Seher Ünver.*

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