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Anxiety Accompanying Cataract Surgery: A Holistic Approach with Nursing Interventions

Katarakt Cerrahisine Eşlik Eden Anksiyete: Hemşirelik Müdahaleleriyle Bütüncül Bir Yaklaşım

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Abstract

Objective: The aim of this review is to provide information on cataract surgery practices, complications of cataract surgery, factors causing anxiety in patients undergoing cataract surgery, and nursing practices used to alleviate patients' anxiety. Method: Twenty studies that met the inclusion criteria and were identified through a search of the Google Scholar and PubMed databases between 2020 and 2025 were included in this review. Findings: The studies show that non-pharmalogical nursing interventions are effective in reducing anxiety related to cataract surgery throughout all stages, from pre-surgery to discharge. Conclusion: It has been observed that individualized, holistic, and evidence-based nursing interventions are effective not only in patients' physical recovery but also in their psychological well-being. Additionally, it is thought that integrating non-pharmacological approaches used in anxiety management into nursing practices may lead to improved surgical outcomes and patient satisfaction.

Key Words: Anxiety, cataract, nursing care, surgery

Özet

Amaç: Bu derlemede amaç, katarakt cerrahisi uygulamalarına, katarakt cerrahisinin komplikasyonlarına, katarakt cerrahisi sürecindeki hastaların yaşadığı anksiyeteye, neden olan etmenlere ve hastaların anksiyetelerinin giderilmesinde uygulanan hemşirelik uygulamalarına yer verilmesidir. Yöntem: 'Google Scholar' ve 'PubMed' veri tabanlarında 2020-2025 yılları arasında taranan, dahil edilme kriterlerine uyan yirmi çalışma bu derlemeye alınmıştır. Bulgular: Araştırmalar, ameliyat öncesinden taburculuk sürecine kadar uzanan tüm dönemlerde katarakt cerrahisine yönelik anksiyetenin azaltılmasında non-farmakolojik hemşirelik uygulamaların etkili olduğunu göstermektedir. Sonuç: Özellikle bireye özgü, bütüncül ve kanıta dayalı hemşirelik girişimlerinin, hastaların fiziksel iyileşmesine olduğu kadar psikolojik rahatlamalarında da etkili olduğu görülmüştür. Ayrıca anksiyete yönetiminde kullanılan non-farmakolojik yaklaşımların, hemşirelik uygulamalarına entegre edilmesiyle hasta sonuçlarındaki cerrahi başarının ve hasta memnuniyetinin de artış gösterebileceği düşünülmektedir.

Anahtar Kelimeler: Anksiyete, cerrahi, hemşirelik bakımı, katarakt

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1. Introduction

Eye diseases represent a significant health concern, with the potential to affect any individual at some point in their life, exerting a detrimental effect on the quality of daily life. While certain forms of ocular impairment do not invariably result in severe limitations to an individual's life, certain progressive disorders have the potential to result in significant vision loss (Abdullah et al., 2021).

One of these diseases, cataracts, is an eye disease that occurs due to various causes such as aging, genetic predisposition, radiation exposure, and metabolic disorders, resulting in opacification of the lens of the eye (Kurniyawan et al., 2023; Sudrajat et al., 2021; Zeng et al., 2021). Cataracts, recognized as one of the most common causes of blindness worldwide, typically result in gradual vision loss that over time limits basic daily activities such as reading, driving, and recognizing faces (Azeem et al., 2019; Desoky et al., 2024; Gimbel & Dardzhikova, 2021; National Eye Instution (NEI), 2024).

Cataract surgery is the most widely used method in the treatment of the disease and has high success rates. While the success of surgery is increasing day by day with modern techniques, it is reported that patients experience intense anxiety in the preoperative period due to fear of going blind, uncertainty and concerns about the nature of surgery (Akoglu & Kucukakca Celik, 2020; Kuzmina et al., 2023; Nabighadim et al., 2025). Although it is performed with minimally invasive methods, cataract surgery can cause serious anxiety in patients. This can negatively affect both compliance with the surgical process and postoperative recovery (Guerrier et al., 2021; Hong et al., 2025; Obuchowska & Konopinska, 2021).

Anxiety is a natural reaction that the individual cannot control and often occurs with the perception of threat (Akoglu & Kucukakca Celik, 2020). Factors such as uncertainty, loss of control and fear of possible complications inherent in surgical interventions are among the main factors that increase anxiety in patients (Bagdigen & Ozlu, 2018; Cheng et al., 2021; Karaca & Durgun, 2024; Pestana-Santos et al., 2022). In this context, it is emphasized that although cataract surgery is considered a minor procedure, the psychological stress experienced by patients should not be ignored.

In this review we discussed, anxiety that develops in patients during cataract surgery, its causes and its effects on patient outcomes. Also current approaches and evidence-based interventions that can be used in nursing care for this condition are evaluated. The aim of this review is to guide and assist nurses on the implementation of more effective and individualized care practices in anxiety management by nurses.

2. Method

In this review, studies conducted between 2020 and 2025 were examined in the Google Scholar and PubMed databases using the keywords “anxiety,” “cataract,” “nursing care,” and “cataract surgery” in order to review the current literature on nursing interventions aimed at alleviating anxiety associated with cataract surgery.

Inclusion criteria;

- Only research studies examining anxiety in cataract surgery
- Articles whose full text was accessed,
- Articles published in the last 5 years between 2020-2025
- Studies whose research designs are descriptive, experimental, qualitative and randomised controlled trials,
- Studies with Turkish and English language publications were included in this review.

Exclusion criteria;

- Studies were unavailability of the full text,
- Articles published in languages other than English and Turkish
- Reviews, case reports, letters to the editor, abstracts, systematic reviews, meta-analysis, master's and doctoral theses were not included in this review.

In terms of contributing to the current literature, 20 studies that met the research criteria constituted the sample of this review

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3. Surgical Treatment of Cataract

Cataract is a global public health problem that seriously affects vision and can lead to blindness (Abdullah et al., 2021; Azeem et al., 2019). It is more common than glaucoma, macular degeneration and diabetic retinopathy and is especially prevalent in individuals over the age of 50 years old (Abdullah et al., 2021; Azeem et al., 2019; Zeng et al., 2021). According to World Health Organization (WHO), age-related cataract affects more than 67 million people and is responsible for approximately 51% of blindness worldwide (WHO, 2020; Jiang et al., 2023). In low-income countries, the vast majority of individuals with vision loss, lose their sight due to cataract (Desoky et al., 2024; Jiang et al., 2023; Taha, 2021).

Various risk factors such as diabetes mellitus, corticosteroid and some psychotropic drug use, hypertension, exposure to ultraviolet rays and some oncologic treatments play a role in cataract development (Azeem et al., 2019; Akoglu & Kucukakca Celik, 2020; Bailey et al., 2018; Celik & Yava, 2019).

The types of cataracts are summarized in Table 1 along with the causes of their formation.

Table 1. Types of Cataract

Cataract Types	Causes of Formation
Nuclear Sclerosis	Also known as age-related cataract, it is the most common type of cataract involving the central or 'nuclear' part of the lens, which hardens or becomes 'sclerotic' due to condensation in the lens nucleus and accumulation of brown pigment in the lens.
Congenital Cataract	It can be seen at birth or in the early postnatal period and can be unilateral or bilateral.
Secondary Cataract	It occurs several months or years after cataract surgery.
Traumatic Cataract	It is caused by blunt or penetrating injuries to the eye and is one of the major causes of unilateral blindness.
Toxic Cataract	Cataracts caused by drugs such as cortisol, phenothiazine, pilocarpine, diuretics, amiodarone, allopurinol, chloroquine or toxic substances such as smoking and alcohol.
Metabolic Cataract	It develops because of diseases such as diabetes, hypocalcemia, galactosemia.
Sindermatotic Cataract	It is usually associated with skin diseases.

(Akoglu & Kucukakca Celik, 2020; Celik & Yava, 2019; Eldoushy, 2022; Erol, 2022; Gimbel & Dardzihikova, 2021; Sekeroglu & Utine, 2021).

After diagnosis, the treatment approach is determined according to the course of the disease. If cataract-related symptoms do not severely affect daily life, eyeglass replacement, magnifying lenses or antireflective coated glasses may be recommended for treatment (Azeem et al., 2019; Desoky et al., 2024; NEI, 2019). However, if basic activities such as reading and driving become difficult, or treatment of other eye diseases is hampered by cataracts, surgery becomes necessary (Desoky et al., 2024).

Modern cataract surgery is based on removing the natural lens of the eye and replacing it with an artificial lens (Desoky et al., 2024; Du et al., 2022). Nowadays, the surgery is mostly performed under topical anesthesia with minimally invasive methods and provides efficient vision in a short time (Akoglu & Kucukakca Celik, 2020; Celik & Yava, 2019).

The surgical techniques used and their characteristics are presented in Table 2.

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Table 2. Types of Cataract Surgery

Type of Surgery	Application	The Status of Preference
Intracapsular cataract extraction (ICCE)	In this surgery, which was the only surgical method used in 1930-1970, the entire lens capsule is removed by making an incision in the cornea. The incision is larger than other methods and patients develop hypermetropia after surgery, so thick-rimmed lenses or contact lenses are used.	Nowadays, this method, which is not preferred unless it is mandatory, can still be used in some cases.
Planned extracapsular cataract extraction (PECCE)	A larger incision is made in the cornea, the hard nucleus and anterior capsule are removed, the posterior capsule of the lens is preserved and an artificial lens is inserted into the eye. Since large incisions require stitches, these stitches cause astigmatism in the future. Therefore, PECCE techniques with smaller incisions (5-6mm) are preferred. Visual function can only be achieved in 2-3 months.	It is applied in very advanced cases where the cataract is too dense to use the PHACO method.
Phacoemulsification (PHACO)	After the eye is anesthetized with local anesthesia, the procedure begins with a small incision in the cornea. The procedure is completed by inserting a thin ultrasound device into the eye, the high vibrations given to the titanium tip of the device shatter the cataractous lens and, after aspiration and cleaning of these fragments by the device, an artificial lens is implanted in the eye. The surgical procedure usually takes less than 30 minutes and sutures are not used to close the wound, except in some exceptional cases. After surgery, visual function is restored in 2-3 days and the quality of vision improves in a very short time.	It is the most commonly used cataract surgery method today.

(Akoglu & Kucukakca Celik, 2020; Azeem et al., 2019; Celik & Yava, 2019; Okutan, 2023).

The management of the complications is as important as the effectiveness of surgical techniques. Henceforth, the complications that may occur after cataract surgery will be expounded upon in the section.

3. Complications After Cataract Surgery

The objective of cataract surgery is to minimise tissue trauma, reduce the size of incisions, and eliminate the requirement for sutures. This approach is intended to reduce the risk of infection and accelerate the healing process (Gozum, 2012). The success of surgery is contingent on the precise positioning of the intraocular lens, the adequate closure of the incision site, and the prevention of potential complications (Celik & Yava, 2019).

Especially with the widespread use of minimal incision techniques, the postoperative recovery period has shortened and complication rates have decreased significantly (Naderi et al., 2020). Today, more than 95% of cataract surgeries are successfully performed; however, complications related to surgery or the healing process may occur in some patients, albeit rarely (Azeem et al., 2019).

The most common physiological complications during surgery include intraocular hemorrhage, capsular rupture, and the dislocation of the lens fragments into the vitreous cavity. Early complications that can be seen immediately after surgery include corneal edema, iris prolapse, acute endophthalmitis and increased intraocular pressure (Celik & Yava, 2019). Late complications include uveitis, intraocular lens malposition, posterior capsule opacification, chronic endophthalmitis and retinal detachment (Celik & Yava, 2019; Desoky et al., 2024).

In particular, the development of conditions such as macular edema, corneal decompensation, capsular tear, and intraocular fluid loss may adversely affect surgical outcomes and require urgent intervention (Desoky et al., 2024).

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In addition to the these physiological complications that may arise in cataract surgery, psychological complications such as anxiety, uncertainty, and fear of blindness related to surgery may also develop in patients (Akoglu & Kucukakca Celik, 2020; Kuzmina et al., 2023; Nabighadim et al., 2025). Therefore, it is of great importance that both surgeons and nurses have the knowledge and skills to recognize complications early in the postoperative period.

4. Clinical Findings Related to Anxiety in Cataract Surgery

Surgical procedures are experiences that cause major changes in the lives of individuals, and this process often triggers a sense of anxiety with intense psychological stress (Bedaso & Ayalew, 2019). In particular, chronic or intense anxiety impairs the physical and psychological well-being of individuals, slows down the healing process, and in some cases can lead to serious complications (Akoglu & Kucukakca Celik, 2020).

Studies show that high anxiety levels increase surgical risk, increase the need for analgesics, prolong hospitalization, and exacerbate postoperative pain (Akoglu & Kucukakakca Celik, 2020; Karaca & Durgun, 2024). The fear of pain, bleeding and death inherent in surgical intervention are the main sources of emotional stress in patients (Baloglu & Karahan, 2024; Bedaso & Ayalew, 2019).

In cataract surgery, patients' conscious participation in the surgery (being awake under topical anesthesia) is one of the main factors that increase anxiety (Akoglu & Kucukakca Celik, 2020; Baloglu & Karahan, 2024; Obuchowska & Konopinska, 2021). In particular, this conscious awareness may cause sympathetic discharge, tachycardia, hypertension, hyperventilation, panic attacks and loss of cooperation (Akoglu & Kucukakca Celik, 2020; Baloglu & Karahan, 2024). However, nursing interventions play a critical role in preventing such negative effects. Indeed, simple but effective interventions such as therapeutic touch have been reported to be successful in reducing patients' anxiety and increasing their satisfaction (Akoglu & Kucukakca Celik, 2020).

When the first and second eye surgeries of the same individuals were compared, it was reported that anxiety levels were higher before the first surgery (Jiang et al., 2015; Ursea et al., 2011; Yu et al., 2016). It has been shown that surgical compliance becomes difficult, operation time is prolonged and outcomes are negatively affected in patients with high levels of anxiety (Demircan et al., 2014). For some patients, the fear of going blind may continue to be a source of anxiety even after surgery (Ramirez et al., 2017).

On the other hand, patients with low anxiety levels have lower pain levels and can adapt to surgery more easily (Anguas et al., 2024). This suggests that clinical outcomes from surgery are directly related not only to surgical success but also to effective anxiety management.

5. Nursing Care and Anxiety Management in Cataract Surgery

Fear of blindness is one of the most common sources of psychological stress in individuals diagnosed with eye disease (Abdullah et al., 2021; Dunaief, 2018; Kumar & Pratap, 2018). In individuals with cataracts, this fear is not only limited to vision loss, but can turn into intense anxiety with the surgical intervention process (Kurniyawan et al., 2023). Therefore, both psychological and physiological needs should be evaluated simultaneously in patients preparing for cataract surgery.

Recent studies revealed that non-pharmacological nursing interventions make a significant contribution to the effective management of anxiety. According to the studies conducted in the last five years: interventions such as stress ball applications, music therapy, aromatherapy, informational videos and hand massage were found to be effective in reducing anxiety (Achar et al., 2021; Cavdar et al., 2020; Dastan et al., 2024; Ezepue et al., 2023; Nizar et al., 2024; Moladoost et al., 2021; Muddana et al., 2021; Yenigun & Korkmaz, 2025). These interventions can positively affect both physiological responses (heart rate, blood pressure) and psychological relaxation (Achar et al., 2021; Barabady et al., 2020; Cavdar et al., 2020; Dastan et al., 2024; Masmirawati et al., 2024; Yenigun & Korkmaz, 2025).

Table 3 summarizes the studies on nursing interventions for anxiety management in patients undergoing cataract surgery. According to the findings:

- Stress ball use: It reduces anxiety and postoperative pain and shows positive effects on vital signs (Yenigun & Korkmaz, 2025).
- Music therapy: It decreases both preoperative and intraoperative anxiety of the patients, especially the use of their preferred music is found to be effective (Achar et al., 2021; Aribaba et al., 2023; Ezepue et al., 2023; Ezepue et al., 2024; Gadegone et al., 2021; Guerrier et al., 2021; Loong et al., 2022; Masmirawati et al., 2024; Muddana et al., 2021; Musa et al., 2022; Rivera et al., 2024).

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- Audiovisual education: Significantly reduces anxiety levels by increasing patients' level of knowledge (Anwaar et al., 2021; Barabady et al., 2020; Nizar et al., 2024; Moladoost et al., 2021).
- Practices such as hand massage and aromatherapy: It contributes to the suppression of the sympathetic nervous system by stimulating relaxation responses and reducing physiological stress responses (Dastan et al., 2024; Cavdar et al., 2020; Farmahini Farahani et al., 2020).

However, it is noteworthy that some studies have reported that visual information interventions can increase anxiety levels, especially in older individuals (Nami et al., 2025). This situation reveals the importance of individualized care planning.

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Table 3. Overview of Studies on Anxiety Management in Cataract Surgery

Author/Country	Study Type / Sample Size	Study Results
Yenigun & Korkmaz, 2025 **Turkiye**	Randomized Controlled Trial N=66	It was determined that patients who played with stress balls for 15 minutes during cataract surgery had significantly lower postoperative pain and anxiety levels, as well as significantly lower systolic and diastolic blood pressure and heart rate values. However, there was no effect of stress ball use on oxygen saturation.
Nami et al., 2025 **Iran**	Randomized Controlled Trial N=81	In this study, in which the effects of having patients watch a video about cataract surgery and visit the operating room on the anxiety levels that may develop in patients were compared, 81 patients were examined in 3 groups, 27 elderly patients in 3 groups: watching a video, visiting the operating room and control group. The anxiety levels of the patients were evaluated the day before surgery, 30 minutes before surgery, and immediately after surgery, and it was reported that the anxiety levels of both intervention groups, as well as the levels of overt and covert anxiety among the three groups were high. In this study, contrary to expectations, it was observed that watching videos or visiting the operating room increased the anxiety levels of the patients, and this was attributed to the elderly age of the patient population.
Masmirawati et al., 2024 **Indonesia**	Quasi-experimental Trial N=36	In the study examining the effects of natural sound music therapy and chamomile aromatherapy combination applied to patients before cataract surgery on anxiety, it was found that nature sounds can reduce anxiety by stimulating the limbic system to induce a sense of calmness and chamomile aroma can reduce anxiety by increasing serotonin.
Nizar et al., 2024 **Indonesia**	Quasi-Experimental Trial N=40	According to the pre-test results of the preoperative audiovisual-based education, it was determined that the patients' knowledge level was inadequate (72.5%) and anxiety level was moderate (67.5%), and it was found that audiovisual-based education was beneficial in increasing the knowledge level and decreasing the anxiety of the patients before cataract surgery.
Dastan et al., 2024 **Turkiye**	Randomized Controlled Trial N=60	It was determined that hand massage performed by applying petroleum jelly on the hands of the patients before surgery and using massage techniques such as effleurage, petrissage, friction and vibration reduced the anxiety levels of patients who will undergo cataract surgery.
Ezepue et al., 2024 **Nigeria**	Randomized Controlled Trial N=98	In a study conducted to evaluate how music therapy affects pupil size, blood pressure, pulse, and respiratory rate, as well as anxiety levels before and during surgery, it was found that music had a positive effect on blood pressure, pulse rate, respiratory rate, and pupil diameter, and reduced anxiety before and during surgery.
Rivera et al., 2024	Randomized Controlled Clinical Trial N=107	It has been concluded that playing music chosen by the patient during cataract surgery reduces anxiety, fear, tension, and confusion, and that music is an inexpensive and low-risk method.

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Table 3. Overview of Studies on Anxiety Management in Cataract Surgery (Continue)

Author/Country	Study Type / Sample Size	Study Results
Ezepue et al., 2023 **Nigeria**	Randomized Controlled Trial N=98	Patients were given MP3 players to listen to the music they preferred, and after the music intervention, the anxiety levels of the patients before and after the surgery were compared, and it was concluded that anxiety decreased significantly in patients undergoing cataract surgery compared to the control group.
Aribaba et al., 2023	Comparative Cross-sectional Study N=144	Music played to patients during cataract surgery has been found to be effective in reducing physiological parameters such as anxiety, salivary cortisol levels, pulse rate, systolic and diastolic blood pressure.
Loong et al., 2022 **Malaysia**	Randomized Controlled Trial N=61	10 minutes before the surgery, the patients were played binaural beats at 10 Hz through headphones to induce a feeling of happiness and it was observed that the anxiety levels of the patients decreased.
Musa et al., 2022 **Malaysia**	Randomized Controlled Trial N=92	In a study conducted with patients undergoing phacoemulsification cataract extraction while listening to slow-tempo standard piano music, a significant decrease was observed in salivary alpha-amylase (sAA) levels and systolic and diastolic blood pressure levels related to anxiety during cataract surgery.
Achar et al., 2021 **Indıa**	Experimental Study N=30	Patients were played Raga Bhairavi music for 30 minutes a day for two days, at 9 a.m., depending on their comfort level, using a music system. After Raga therapy, a significant decrease in patients' depression, anxiety, and stress levels was observed.
Guerrier et al., 2021 **France**	Single-masked Randomized Controlled Trial N=243	Patients were fitted with sleep masks before surgery and were allowed to listen to music with headphones for 20 minutes and their anxiety levels were evaluated and it was observed that their anxiety levels decreased significantly.
Anwaar et al., 2021 **Pakistan**	Randomized Controlled Trial N=46	In this study, a 15 minute and 27 second audio recording was played 5 times before the surgery, which provided training to the patients about the stages of the surgery, useful tips, relaxation techniques, healing process and visualization exercises, it was concluded that the anxiety levels of the patients decreased significantly.
Muddana et al., 2021 **India**	Randomized Controlled Trial N=330	Patients were provided with a portable MP3 player to listen to music before and during the first phacoemulsification surgery and it was concluded that the music intervention significantly reduced the anxiety levels of the patients and there was a statistically significant decrease in postoperative blood pressure.

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Table 3. Overview of Studies on Anxiety Management in Cataract Surgery (Continue)

Author/Country	Study Type / Sample Size	Study Results
Moladoost et al., 2021 **Iran**	Quasi-experimental Trial N=64	It is reported that special patient education in the form of face-to-face education sessions, hospital visits and telephone calls, organized as preoperative patient education, significantly reduces anxiety in patients who will undergo cataract surgery.
Gadegone et al., 2021 **India**	Prospective, Interventional Study N=300	Patients were divided into three groups, one of which underwent phacoemulsification surgery under topical anesthesia, and the other two groups under local anesthesia. Two groups, including the group that received topical anesthesia, listened to "Classical Sitar Music," while one group did not listen to music. In the groups that listened to music, blood pressure and heart rate returned to normal levels statistically significantly compared to preoperative values. Patients who underwent surgery under topical anesthesia showed a significant reduction in anxiety levels compared to those who underwent surgery under local anesthesia. It was observed that music could be widely used to reduce anxiety levels in patients undergoing cataract surgery.
Cavdar et al., 2020 **Turkiye**	Randomized Controlled Trial N=140	Just before the surgery, baby oil was applied to the palms, hands and fingers of the patients and hand massage was performed for 10 minutes using patting, kneading, stretching and circular movements and it was concluded that the massage reduced anxiety in patients undergoing cataract surgery.
Farmahini Farahani et al., 2020 **Iran**	The Three-Arm Randomized Controlled Clinical Trial N=90	Patients were divided into three groups and received a 5-minute massage on each hand or foot in the surgical waiting room 10 minutes before surgery. Anxiety levels, heart rate, respiratory rate, systolic and diastolic blood pressure were assessed before and after the intervention. Both hand and foot massage resulted in a significant reduction in anxiety and heart rate compared to placebo massage, a significant decrease in heart rate and anxiety was observed in the foot and hand groups after the intervention, while anxiety increased significantly in the placebo group after the intervention. Systolic blood pressure decreased significantly in the foot group and respiratory rate decreased significantly in the hand group after the intervention. It was observed that hand or foot massage was effective in managing anxiety.
Barabady et al., 2020 **Iran**	Randomized Controlled Trial N=72	An audio file containing Benson's relaxation technique was played to the patients for 20 minutes under the supervision of an expert once on the evening and once on the morning of the surgery, and as a result, Benson's relaxation technique significantly reduced the anxiety of patients undergoing cataract surgery.

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In conclusion, anxiety should be addressed with a holistic nursing approach, taking into account not only psychological but also physiological effects. Establishing effective communication with the patient at every stage of the surgical process, meeting the individual's information needs and implementing relaxing interventions cause a significant decrease in anxiety level.

6.1. Nursing Care in the Preoperative Period

Patients preparing for cataract surgery often experience anxiety due to reasons such as uncertainty, fear of failure, and the risk of developing complications; this situation can affect the patient physiologically and psychologically (Azeem et al., 2019; Celik & Yava, 2019; Zeng et al., 2021). The roles of nurses in the preoperative period are of great importance in order to reduce anxiety and increase surgical success (Abdullah et al., 2021; Azeem et al., 2019; Rabinovitch, 2017).

The basic practices of effective nursing care in this process are as follows:

- **Assessment of anxiety level:** The nurse should determine the patient's anxiety level and plan appropriate interventions. A safe environment should be provided by reducing lighting, sound and environmental stimuli (Celik & Yava, 2019).
- **Communication and information:** The nurse should communicate with the patient in a simple and understandable language, answer the patient's questions and provide support to reduce anxiety caused by lack of information (Celik & Yava, 2019; Okutan, 2023; Karaca & Durgun, 2024).
- **Information about the disease and surgery:** Providing explanatory information about the process, risks, type of anesthesia, and postoperative procedures increases the patient's perception of control and reduces anxiety (Nizami et al., 2024; Okutan, 2023).
- **Physical assessment and preparation:** Patient anamnesis should be taken carefully; medications, chronic diseases and allergies should be evaluated. Eye trauma should be avoided (Celik & Yava, 2019; Okutan, 2023).
- **Management of general health problems:** Conditions such as diabetes, hypertension, respiratory tract infection and heart diseases should be controlled and preoperative stabilization should be ensured (Nizami et al., 2024).
- **Psychological support:** Especially in individuals with reduced visual function, it is important to provide psychological support and a safe environment before surgery. The nurse should assume a supportive and guiding role in this process (Okutan, 2023).
- **Correct side marking:** Correctly marking the eye to be operated on is a critical step in terms of patient safety and the accuracy of the preoperative eye marking should be confirmed once again by the nurse prior to surgery (Okutan, 2023).

6.2. Intraoperative Nursing Care

Nursing care during cataract surgery is important both to ensure physical safety and to increase the psychological comfort of the patient. The role of the nurse in the perioperative period is to facilitate the patient's compliance with the surgical process by evaluating the patient's needs with a holistic approach (Gobbo et al., 2020; Zeng et al., 2021).

The basic steps that nurses should implement in this process are as follows:

- **Correct surgical site:** The accuracy of the preoperative eye marking should be checked once again by the nurse before surgery (Okutan, 2023).
- **Information about anesthesia:** The surgery is usually performed under topical or local anesthesia. Since the patient will be awake during the procedure, it should be clearly explained that he/she must comply with the verbal commands (Okutan, 2023).
- **Vascular access safety:** It is necessary to ensure intravenous vascular access for sedative drug administration when necessary. In cases where sedation is deemed necessary to ensure the patient's comfort, sedative drugs can be administered intravenously. The presence of a vascular access is very important in controlling possible sympathetic discharges that may occur during surgery (Okutan, 2023).
- **Postoperative debriefing:** The patient should be informed that his/her eye will be covered with a bandage the surgery, that he/she may feel mild pain which can be relieved with medication. These explanations help the patient to make a more prepared and calm transition to the postoperative period (Okutan, 2023).

Perioperative nursing care does not only consist of technical applications; it also includes the responsibility of understanding the patient's feelings, creating an environment of trust, and making him feel that he is with him at every step of the surgical process (Forsberggim et al., 2015; Zeng et al., 2021).

6.3. Postoperative Nursing Care

Nursing care to be applied in the postoperative period after cataract surgery plays a vital role in both preventing complications and rapidly regaining the patient's visual functions. In this process, nurses should strengthen the patient with psychological support as well as physical monitoring (Desoky et al., 2024).

The main nursing practices that should be considered after surgery are as follows:

- **Eye bandage and protection training:** Following surgery, the eye is usually covered with a sterile compress for 24 hours. The nurse should explain to the patient that they should not rub, scratch or put pressure on the eye during this period (Celik & Yava, 2019; Okutan, 2023).
- **Aseptic technique and hygiene:** To reduce the risk of infection, the nurse should strictly follow aseptic rules. After the bandage is removed, the eye should be cleaned with a moist sterile cloth from inside out (Celik & Yava, 2019). An environment of trust should be provided by informing the patient during the procedure.
- **Safe mobilization:** When the patient is taken to bed after surgery, care should be taken against the risk of possible trauma. The patient should first be seated and then stood up, thus reducing the risk of falling and reducing anxiety (Celik & Yava, 2019).
- **Pain and complication monitoring:** The patient should be told that conditions such as mild pain, stinging, burning, serous discharge for 1-2 days postoperatively are normal; however, it should be emphasized that findings such as decreased vision, sudden pain, intense discharge may be signs of serious complications (Celik & Yava, 2019; Okutan, 2023).
- **Positioning and pressure management:** The patient should be informed that he/she should lie on the opposite site of the surgery. In addition, situations that may increase intraocular pressure (heavy lifting, straining, bending) should be prevented (Okutan, 2023).
- **Gastrointestinal regulation:** In order to prevent conditions that may affect intraocular pressure such as nausea, vomiting and constipation, the patient's fluid intake should be increased and feeding with fiber foods should be supported (Okutan, 2023).

The aim of the nurse in this period is not only to monitor complications, but also to ensure the patient's comfort, reduce the level of anxiety and manage the postoperative process safely.

6.4. Nursing Care in Post-Discharge Period

For patients who have undergone cataract surgery, care and controls to be maintained at home in the postoperative period are of great importance for the continuity of surgical success. In this process, the duty of the nurse is to inform the patient correctly and explain the necessary lifestyle arrangements.

The information that should be provided by the nurse during the discharge process are as follows:

- **Eye checks:** It should be made clear to the patients that they should come for follow-up visits on the 1st day, 1st week and 1st month after surgery (Celik & Yava, 2019; Okutan, 2023).
- **Eye protection:** The use of sunglasses should be recommended to protect against external factors such as sunlight, dust and wind (Nizami et al., 2024; Okutan, 2023). It should also be explained that the patient should avoid make-up, rubbing the eyes and driving for a certain period of time.
- **Physical activities:** The patient should be told not to lift heavy objects, strain, blow and bend forward for a few weeks. These can increase intraocular pressure and lead to complications (Celik & Yava, 2019; Okutan, 2023).
- **Hygiene and daily life:** Hand hygiene should be prioritized and the patient should be informed that he/she can take a bath one week after surgery (Celik & Yava, 2019; Gulsen & Akansel, 2018). The patient should be frequently reminded not to rub or touch his/her eyes (Celik & Yava, 2019; Gulsen & Akansel, 2018).
- **Medication use:** The patient should be informed that he/she should apply eye drops containing antibiotics and steroids 4-6 times a day for 3 weeks according to the physician's recommendation (Celik & Yava, 2019; Okutan, 2023). It is imperative to emphasise that a minimum of a five-minute interval should be

observed between applications of eye drops, and that eye drop bottles should be vigorously agitated prior to use (Celik & Yava, 2019; Okutan, 2023).

- **Protective measures:** Protective goggles or face shields should be recommended when playing sports, gardening or working with chemical liquids (Nizami et al., 2024).
- **Emergencies:** It should be emphasized that the patient should urgently consult an ophthalmologist when unusual findings such as decreased vision, stabbing pain and intense discharge develop (Nizami et al., 2024).

Accurate and individualized education provided by the nurse during this period facilitates the patient's healing process, reduces the level of anxiety and contributes directly to the expected success of surgery.

7. Conclusion

Cataract is an important health problem that occurs with advanced age and negatively affects the quality of life of individuals. Although surgical treatment is the main solution for this disease, surgery itself is a source of anxiety for most patients. In particular, fear of vision loss, uncertainty and negative predictions about surgery cause high levels of anxiety in individuals preparing for cataract surgery.

This review examines anxiety experienced during cataract surgery and nursing care practices for this condition. Studies conducted over the past five years in the literature have shown that non-pharmacological nursing interventions, particularly music therapy, are effective in reducing anxiety levels and physiological parameters associated with increased anxiety throughout the entire period from pre-surgery to discharge. It has been determined that individualized, holistic, and evidence-based nursing interventions contribute not only to patients' physical recovery but also to their psychological well-being.

In today's rapidly evolving standards of care, nurses are expected to have not only technical knowledge but also emotional support and therapeutic communication skills. Integration of non-pharmacologic approaches to anxiety management into nursing practice contributes significantly to surgical success and patient satisfaction.

Conducting future studies in different age groups, in different cultural contexts and in the light of individualized care approaches will further improve the quality of nursing care.

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Conflicts of Interest

The authors declare that they have no conflicts of interest.

Ethics Approval

As this study is a review article, ethics committee approval was not required.

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