



SELF-CARE EXPERIENCE OF GLAUCOMA PATIENTS WITH COMPLICATIONS: A PHENOMENOLOGICAL STUDY OF PATIENTS AT SMEC MANADO EYE CLINIC

Amelia Olii¹, Eko Winarto ², Ns. Sonhaji³

¹ Nursing Study Program, Karya Husada University, Semarang, Indonesia

² Nursing Study Program, Karya Husada University, Semarang, Indonesia

³ Nursing Study Program, Karya Husada University, Semarang, Indonesia

Oliiamelia40@gmail.com

Abstrak

Glaukoma dengan komplikasi merupakan penyebab kebutaan kedua terbesar di dunia, dengan perkiraan 60,5 juta penderita pada tahun 2010 meningkat menjadi 79,6 juta pada tahun 2020, 47% di antaranya berada di Asia, terutama karena Glaukoma Sudut Tertutup Primer (PACG). Di Indonesia, prevalensinya sekitar 4-5 per 1.000 penduduk, dengan peningkatan signifikan kunjungan ke rumah sakit dari 65.774 pada tahun 2021 menjadi 427.091 pada tahun 2022, menunjukkan kurangnya kesadaran dini terhadap penyakit ini yang dapat menyebabkan kebutaan permanen, di mana diagnosis dini dan pengobatan dini sangat penting (Indonesia, 2023). Studi ini bertujuan untuk mengeksplorasi dan memahami pengalaman perawatan diri pasien dengan komplikasi glaukoma menggunakan pendekatan Orem. Studi ini menggunakan metode fenomenologi interpretatif kualitatif untuk mengeksplorasi pengalaman subjektif pasien glaukoma dengan komplikasi di Klinik Mata SMEC. Kombinasi pengambilan sampel berurutan dan bertujuan, yang hanya melibatkan mereka yang setuju untuk diwawancara dan memenuhi kriteria inklusi yang dipilih, menghasilkan sampel dua puluh partisipan (14 pasien glaukoma dengan komplikasi, 5 keluarga, dan 1 dokter). Analisis tematik Braun & Clarke digunakan untuk mengidentifikasi tema-tema penting untuk pemahaman holistik tentang perawatan diri dari perspektif pasien glaukoma. Hasil menunjukkan bahwa pasien glaukoma dengan komplikasi menunjukkan pemahaman yang kuat tentang perawatan diri tetapi menghadapi hambatan eksternal yang signifikan. Fasilitas lokal yang terbatas memaksa mereka untuk bepergian ke kota lain, yang menyebabkan stres finansial dan psikologis seperti depresi dan kekecewaan. Gejala pasca operasi seperti nyeri mata, rasa berpasir, penglihatan kabur, dan sensitivitas terhadap cahaya juga tetap ada. Namun, mereka menggunakan mekanisme coping positif, seperti mengelola emosi dan berdoa, untuk mengatasi tantangan ini. Kesimpulannya, pengalaman hidup pasien glaukoma dengan komplikasi adalah perjuangan kompleks yang melibatkan komitmen pribadi yang kuat, tantangan psikologis yang mendalam, dan hambatan sistemik eksternal yang membutuhkan dukungan komprehensif dari keluarga dan sistem perawatan kesehatan yang lebih mudah diakses.

Kata Kunci: Komplikasi; Pasien Glaukoma; Pengalaman Perawatan Diri

Abstract

Glaucoma with complications is the second leading cause of blindness worldwide, with an estimated 60.5 million sufferers in 2010 increasing to 79.6 million in 2020, 47% of whom are in Asia, mainly due to Primary Angle-Closure Glaucoma (PACG). In Indonesia, the prevalence is around 4-5 per 1,000 population, with a significant increase in hospital visits from 65,774 in 2021 to 427,091 in 2022, indicating a lack of early awareness of this disease that can lead to permanent blindness, where early diagnosis and early treatment are crucial (Indonesia, 2023). This study aims to explore and understand the self-care experiences of patients with glaucoma complications using the Orem approach. This study uses a qualitative interpretative phenomenological method to explore the subjective experiences of glaucoma with complications patients at the SMEC Eye Clinic. A combination of bracketing and purposive sampling, involving only those who agreed to be interviewed and met the selected inclusion criteria, resulted in a sample of twenty participants (14 glaucoma with complications patients, 5 families, and 1 physician). Braun & Clarke thematic analysis was used to identify themes critical to a holistic understanding of self-care from the perspective of glaucoma patients. Results indicate that glaucoma with complications patients demonstrate a strong understanding of self-care but face significant external barriers. Limited local facilities force them to travel to other cities, leading to financial and psychological stressors such as depression and disappointment. Post-operative symptoms such as eye pain, a gritty feeling, blurred vision, and sensitivity to light also persist. However, they use positive coping mechanisms, such as managing emotions and praying, to overcome these challenges. In conclusion, the lived experience of glaucoma with complications patients is a complex struggle involving strong personal commitments, profound psychological challenges, and external systemic barriers that require comprehensive support from families and a more accessible healthcare system.

Keywords: Komplikasi; Glaucoma With Complications Patients; Self Care Experience

@Jurnal Ners Prodi Sarjana Keperawatan & Profesi Ners FIK UP 2026

* Corresponding author :

Address : Purwokerto, Indonesia

Email : nurisnaini@ump.ac.id

INTRODUCTION

Glaucoma with complications sufferers worldwide in 2010 was estimated at 60.5 million and is expected to increase to 79.6 million by 2020. Nearly half of glaucoma with complications sufferers (47%) live in Asia, where 87% are caused by primary angle-closure glaucoma with complications (PACG). In 2010, an estimated 4.5 million people suffered blindness in both eyes due to primary open-angle glaucoma with complications (POAG), and 3.9 million people due to PACG. This figure is expected to increase to 5.9 million and 5.3 million by 2020. Unlike cataracts, blindness due to glaucoma with complications is permanent. (Indonesia, 2023)

The results of the 1993-1996 Vision and Hearing Survey found a glaucoma with complications prevalence of 0.2% in Indonesia. According to the 2007 Basic Health Research (Riskesdas), the prevalence of glaucoma with complications was 4.6%. (Perdami, 2018) The prevalence of glaucoma with complications in Indonesia is estimated at 0.46%, or the equivalent of 4-5 people per 1,000 residents. According to data from hospital outpatient departments in Indonesia, the number of glaucoma with complications visits increased from 65,774 in 2021 to 427,091 in 2022. (Sipayung et al., 2023)

Data from a 1996 survey showed that the incidence of glaucoma with complications in Indonesia varies (0.4%-1.6%), with 1.8% of cases in those aged 40+ at the Cipto Mangunkusumo Hospital (RSCM), predominantly Primary Angle Closure Glaucoma (PACG) with acute symptoms, highlighting the need for increased early awareness despite existing facilities. PACG is common and can lead to rapid blindness if left untreated. Factors such as age, high eye pressure, and family history contribute to this. Low public health awareness is a major obstacle (Ismandari & Helda, 2011).

The prevalence of glaucoma with complications according to the results of the Basic Health Research in 2007 showed that the national prevalence of glaucoma with complications was 0.5%. There are 10 provinces in Indonesia that have a prevalence above the national prevalence, namely DKI Jakarta (1.85%), Nanggroe Aceh Darussalam (1.28%), Riau Islands (1.26%), Central Sulawesi (1.21%), West Sumatra (1.14%), South Kalimantan (1.05%), West Nusa Tenggara (0.73%), South Sumatra (0.72%), Gorontalo (0.67%), and East Java (0.55%) (Ananda, 2016).

Based on preliminary research, four of the ten patients in July 2024 who had their eye pressure measured by researchers admitted to having had a tonometer (eye pressure measurement) but did not understand the purpose of the measurement. Furthermore, three other patients stated they were unaware of increased eye pressure and glaucoma with complications.

Meanwhile, the researchers' assessment of the results of examinations by ophthalmologists using a slit lamp revealed that two of the ten patients showed symptoms of primary angle-closure glaucoma (GPST). Eye pressure was recorded at >25 mmHg. Normal pressure generally ranges from 10–21 mmHg. Values above 21 mmHg are considered high and are a major risk factor for glaucoma with complications. Previously, both patients complained of pain around their temples that radiated to the back of their heads. They admitted they were unaware of this and had never had an eye examination.

One patient diagnosed with glaucoma with complications, Mr. SP (70 years old), expressed the profound insight that "the eyes are the lamp of the body," a powerful metaphor that underscores the central role of vision in our daily lives, mobility, and independence. This statement is rooted in the fact that vision loss is often felt to be far more disabling than the loss of any other limb, as the patient compared it to the amputation of a finger.

Patient Mr. AL (65 years old) highlighted the importance of early diagnosis and adherence to treatment for serious eye conditions such as glaucoma with complications and cataracts. His experience demonstrates how delaying treatment can lead to permanent vision damage. Sudden vision loss can impact mental health, especially in patients of productive age, who may experience emotional distress, fear, and anxiety due to the loss.

Dorothea Orem's Self-Care Deficit Theory provides a framework for nurses to assess and support glaucoma with complications patients in managing their condition and related complications. The nurse's role shifts from solely providing care to a supportive-educational system, where patients are empowered to manage their self-care with the best possible guidance and education, especially given the chronic and potentially devastating nature of glaucoma with complications (Li et al., 2023). In patients who have been diagnosed with glaucoma, the ability to maintain health is a primary focus, especially in patients who experience symptoms of severe pain in the eye and head area, sudden blurred vision without symptoms, and patients with complications of visual field loss or have experienced complications of blindness due to glaucoma with complications.

In practice, nursing care encompasses the patient's biological, psychological, social, and spiritual aspects. Nursing care for glaucoma with complications patients encompasses quality of life, patient safety, patient education regarding therapy adherence, patient education about glaucoma with complications, emphasizing the importance of follow-up, and managing stress and

anxiety. Ophthalmological nurses play a role in assessing, diagnosing, and treating patients (Astari, 2022).

Glaucoma with complications can affect anyone, from newborns to the elderly, regardless of education level or social class (Goldberg, 2016). Permanent blindness from glaucoma with complications can strike suddenly without any prior symptoms (Hajar et al., 2021). Patients are often unaware they have glaucoma with complications because the disease typically affects peripheral vision first. By the time a person notices something wrong with their vision, the damage has usually already occurred and has already progressed (Nurhayati et al., 2023).

Glaucoma with complications is a disease of the optic nerve that causes narrowing of the visual field and loss of visual function (Mahendra et al., 2022). Many patients with glaucoma with complications, especially early in the disease, are unaware they have the condition until it is discovered during a routine eye examination. People generally slowly lose peripheral vision but retain central vision until the disease progresses. This can present as a classic arc pattern on Humphrey Visual Field Testing (Dietze et al., 2024). Patients with advanced glaucoma are often very afraid of going blind and are vulnerable to loss of their remaining visual field.

This study aims to explore and understand the self-care experiences of patients with glaucoma with complications using the Orem and Roy approach at the SMEC Manado Eye Clinic.

METHOD

The research method used is a qualitative, interpretive phenomenological study. This qualitative approach aims to understand the essence of subjective human life experiences. It utilizes bracketing techniques (deferring assumptions) to capture the meaning of phenomena authentically from the subjects. This technique is used through in-depth interviews to uncover deeper, essential themes and patterns, not just superficial ones. This research will be conducted from August 2025 to October 2025 (Rukminingsih, 2020).

The population of this study will be glaucoma with complications patients who received treatment at the Smecl Eye Clinic in September 2025, aged 30 years and older. The sample was selected purposively, meaning only those who agreed to be interviewed and met the inclusion criteria were selected. The total number of participants was 20 (14 patients glaucoma with complications, 5 patients' families glaucoma with complications, and 1 glaucoma with complications specialist). The purpose and roles of the participants were that the patients were the primary subjects, while the patients' families and glaucoma with complications specialist served as

data sources for triangulation, which was used to validate the findings and reduce bias. The sampling termination criterion was that the data collection process was stopped after reaching data saturation (the point at which no new information or themes emerged from additional data).

Braun & Clarke's thematic analysis data analysis techniques: 1) Identifying interesting data features and grouping them into initial codes. 2) Grouping similar codes to form potential themes. 3) Examining themes to ensure their relevance and accuracy to the data. 4) Defining and naming themes. 5) Writing a report describing the researcher's findings and interpretations (Braun & Clarke, 2006).

RESULTS AND DISCUSSION

Theme 1: Glaucoma with complications patients recognize the need for treatment, hampered activities and need family assistance.

Participants in this study recognized the need for treatment, hampered activities, and needed family assistance to understand self-care.

Glaucoma with complications patient response to recognizing the need for treatment

The results of in-depth interviews with five of the twenty participants showed that they were not only aware of the need for treatment, but they were also able to articulate their explanations in detail during the interview process.

(P3): *"It hurt all the time from night to morning. I went straight to the eye doctor."*

(P4): *"I was examined by a doctor immediately, and he said I had glaucoma and prescribed medication."*

(P5): *"Well, I went to the hospital to see an ENT doctor. After the ENT doctor examined my sinuses, they were fine and there were no problems. I consulted an ophthalmologist at the hospital. After the doctor examined me,*

(KP2): *"My mother cries a lot. Sometimes, when she feels pain, she can't walk around anymore and just cries. Sometimes I think she feels inferior when she meets her neighbors because her eyes are sore and swollen. That's why we came all this way to get treatment so she can get better."*

(KP4): *"After my father felt pain, we came for treatment."*

Glaucoma with complications patients' response to feeling restricted activity

In-depth interviews with twenty participants revealed that their activities were hindered. Five of the twenty participants provided more detailed explanations of how these obstacles occurred.

(P1): *"When the pain flares up, I can't do my work; I can only lie down, or when it subsides, I just sit. Because when the pain subsides, I can't stand it."*

(P3): "This has really affected my work. I can no longer take care of my children. I haven't returned to my village yet."

(KP4): "I can no longer work, and my wife is the breadwinner. I haven't worked since I got sick. My mother, who is the breadwinner, is now supporting our two children; the first is in college, and the second is still in elementary school."

(KP4): "The impact is that I can't work, I can't do my activities, and I can't help my wife. It's really difficult."

(KP9): "My relationship with my family is normal. What changed was the activity, usually work, but in the end it was just us because we were afraid of the hot steam or being tired from cooking and suddenly having a relapse."

The response of glaucoma with complications patients requires family support.

In-depth interviews with twenty participants revealed their need for family support. This was revealed in interviews where four of the twenty participants successfully explained their need for family assistance.

(P9): "Support is important because only family accompanies me, and without treatment, recovery is impossible."

(P6): "Support is important because my family is crucial to the treatment process."

(P12): "Support is important in the process, helping with self-care. My children and grandchildren always take care of me, for eye drops. I can take the medication myself, but I need help with the eyes."

(DR): "Family plays an important role in providing support to patients. This support includes, for example, moral support to encourage patients to receive regular treatment. Elderly patients find it difficult to travel alone, so they need company. Without company or assistance, it will be difficult to get treatment or check-ups with the doctor. Family members will also remind patients, especially elderly patients, who will inevitably forget or neglect to use the eye drops. Therefore, family members can help by reminding them and also assisting with the eye drops to ensure optimal use."

Theme 2: Glaucoma with complications patients follow a healthy diet, use visual aids and limit activities.

Nursing interventions of healthy eating guidance, visual aids, and activity restrictions effectively improved participants' ability to perform self-care independently, this is supported by the interview presented below.

Response of glaucoma with complications patients to a healthy diet.

In-depth interviews with 20 study participants revealed that they followed a healthy diet recommended by nurses, which included limiting sugar, salt, and coffee intake. To illustrate

these findings, here are quotes from two participants.

(P1): "I reduce screen time, such as not eating too many heavy, sugary foods, walking a lot, and not drinking too much coffee."

(P14): "I've started a diet and reduced my intake of salty foods. I've reduced my intake so that my blood pressure doesn't rise again. I'm worried that if it keeps rising, it will affect my other eye."

Response of glaucoma with complications patients to eyeglasses

In-depth interviews revealed that six of the twenty study participants used glasses for eye care. This indicates that glasses are a common eye care method among the study subjects, as reported by nearly a third of the participants.

(P7): "Sometimes when I'm watching television, I have to be far away. If I want to see the sun, I sometimes wear sunglasses or a hat. So, if the sun is too hot during the day, I wear sunglasses because if I'm outside for a long time, looking at the light, when I enter the room, I feel blinded. It gets dark, but it gradually goes away."

(P11): "I just work normally. Usually, I wake up early in the morning. If I have clothes that I've soaked overnight, I do the laundry. After washing, if someone orders a cake, I immediately do it. The important thing is that I wear glasses. If I don't, my eyes immediately get red."

Response of glaucoma with complications patients to activity restrictions

The results of in-depth interviews showed that participants limit their activities. Here are excerpts from the interviews:

(P5): "Reducing heavy activities by doing light work."

(P8): "I no longer visit my neighbors."

(KP8): "Now I just sleep, wake up, eat, that's all. Nothing else." other serious ones"

(P14): "Limiting activities in community activities"

Theme 3: Participants' experiences of glaucoma with complications and biopsychosocial perceptions of experiencing psychological stress

Participants in this study experienced psychological stressors in the biopsychosocial experiences and perceptions of glaucoma patients. This is reinforced by the following interview excerpts.

P1: "I actually feel heavy, disappointed because (with a sigh and a sad look) one eye is still functioning and the other isn't, but that's why I'm following a healthy lifestyle first."

P3: "I keep it to myself when I'm stressed, but when I'm with my family, I feel disappointed and hopeless."

P4: "I'm a little stressed too. What else can I do? I just endure it patiently, even though my vision is blurry, but I can still see a little."

KP4: "My mother feels stressed and depressed because of the pain she feels."

Theme 4: Glaucoma patients with complications adhere to medication, regularly consult with doctors and find treatment gaps

Participants in this study adhered to their medication regimen and regularly consulted their doctor. Interview excerpts are presented below.

Glaucoma with complications patient response to medication compliance

Participants managed their glaucoma pain in a manner consistent with medical guidelines, focusing on adherence to their doctor's prescribed treatment regimen, which included oral medications and eye drops. Excerpts from in-depth interviews with five participants illustrate this approach, which is standard practice for managing the condition.

(P1): "I take my medication, yes, only the medication and the eye drops."

(P4): "I must always take my medication, including my eye drops."

(P12): "If there are eye drops, I use them."

(KP4): "I have to have regular checkups and I can't run out of them."

(KP12) "I usually put in eye drops for tears."

Response of glaucoma with complications patients to regular consultations with doctors

The participants regularly consulted with their doctors to manage their pre-existing glaucoma condition and received necessary medical guidance, as quoted from interviews with 3 of the 20 participants.

(P5): "If you've been diagnosed with glaucoma, you should regularly check up and follow the doctor's recommendations."

(P7): "You have to have regular checkups, especially with a glaucoma specialist."

(DR): "To see a doctor and also to pick up your medication. If the patient isn't taking their medication regularly or isn't taking their medication regularly, we usually evaluate the problem at the clinic, such as the distance, or the inability to drive them. If, for example, the patient isn't taking their medication regularly due to the long distance to pick up their medication, we usually recommend laser treatment or surgery. This is more helpful so they don't depend on medication, because without medication, their eye pressure will definitely increase. and worsened his eye condition"

Glaucoma patient with complications response to finding treatment GAP

Participants identified significant disparities in the availability and completeness of healthcare equipment between hospitals in different areas, as excerpts from interviews with three of the twenty respondents are given below.

"Hospital equipment is incomplete in Tomohon. For treatment, we stay in a boarding house in Manado." (P3)

"Every time I go for treatment, I have to stay at my children's home because the treatment location is far from Gorontalo. Manado has complete healthcare equipment." (P11)

"We leave from Gorontalo for treatment between 8 a.m. and 6 p.m. because Manado has more complete equipment." (KP13)

Theme 5: Glaucoma with complications patients experience post-operative pain and manage emotional responses

Participants in this study still experienced post-surgical pain and managed emotional responses. This is supported by the following interviews:

Patient response to pain after glaucoma with complications surgery

Participants still experienced postoperative pain in the patient's adaptive response to treatment and glaucoma. The following are interviews with seven of the twenty participants.

(P7): "I feel like there's sand in my eyes, itchy, "Very uncomfortable"

(P8): "Vision is still blurry, interfering with vision"

(P9): "Eyes hurt when exposed to bright light"

(P11): "A feeling of discomfort or mild swelling in the eyelids."

(P13): "Eye pressure is increasing and it feels painful"

(KP9): "My grandmother often feels eye pain after surgery"

(KP11): "Yes, I often cry because of eye pain"

Patient response manages emotional responses

Participants used various strategies such as encouragement, self-control, seeking solace, and prayer to manage their emotional responses with the goal of increasing self-acceptance, as follows, excerpts from interviews with three of the twenty participants.

(P5): "I feel down, but then I regain my spirits. I regain my spirits, control my emotions, control my heart, and pray, then take my medication."

(P6): "I prefer to just sing hymns, pray, open YouTube and listen to sermons or the Bible, or listen to stories."

(P7): "So, every time I pray, I always ask God for help, because I always rely on You, the One above."

Discussion

Glaucoma with complications patients recognize the need for medication, disruption of activities and the need for family support in their understanding of self-care.

The results showed that patients understood the concept of self-care through

acknowledging the need for ongoing treatment, experiencing practical barriers to daily activities, such as vision problems that made tasks difficult, and a significant need for support from family members to effectively manage their condition (Lee et al., 2024). These findings align with the established understanding that self-care is a complex personal process influenced by individual experiences, beliefs, social support systems, and practical barriers, not just clinical knowledge (Patel et al., 2021).

Glaucoma with complications patients follow a healthy diet, use eyeglasses, and limit activities as advised by nurses to improve their daily self-care practices.

The study's results suggest an indirect link between a high-salt diet and glaucoma with complications through its effects on blood pressure and eye mechanisms. Excess salt can increase intraocular pressure (IOP) through complex mechanisms such as changes in aqueous humor (eye fluid) flow due to increased blood pressure and plasma osmolality, making a low-salt diet a protective measure. Reducing salt intake can be an important dietary strategy to help maintain stable intraocular pressure and reduce the risk of glaucoma with complications, especially in individuals with (Yang et al., 2024). The study also showed that consumption of ultra-processed foods (UPF) increases the risk of glaucoma with complications, especially those high in sugar. Therefore, limiting ultra-processed foods (UPF) is important to prevent foods high in unhealthy fats, sugar, salt, low in fiber, and high in preservatives, which increase the risk of obesity, diabetes, and other health problems. Paying attention to nutrition labels, limiting advertising, and promoting natural foods are preventative measures that can be implemented, as ultra-processed foods (UPF) are easily recognized (López-Gil et al., 2024). Research shows that intraocular pressure (IOP), the fluid pressure inside the eye, is a major risk factor for glaucoma with complications (damaging the optic nerve and potentially blinding), and caffeine can increase IOP, while frequent drinkers experience a more significant increase because the body is more responsive to the increase in eye fluid (aqueous humor). This underscores the importance of monitoring caffeine intake as it can trigger a response that worsens glaucoma with complications (Juanito et al., 2021).

Research confirms that glaucoma with complications is a serious condition that damages the optic nerve due to high intraocular pressure, causing pain (especially acute glaucoma), but the pain cannot be relieved by ordinary glasses because glasses only correct focus, not lower eye pressure or repair the damaged optic nerve, so it requires special medical treatment such as eye drops, lasers, or surgery to prevent permanent

blindness (Dietze et al., 2024). Special glasses can help reduce intraocular pressure and slow the progression of glaucoma with complications. Special glasses (such as special colored lenses or prism lenses) can help glaucoma with complications sufferers by reducing sensitivity to light (glare) and slowing vision loss, but glasses are not the main treatment for lowering intraocular pressure (IOP) directly; their main role is to manage symptoms and protect the eye, while eye drops or surgery are more focused on lowering IOP. (Karimun et al., 2023). Specialty glasses like Axon Optics with Avulux lenses help combat glare, while prism glasses can restore peripheral vision lost due to glaucoma with complications, and UV400 sunglasses are essential for UV protection. (Deemer et al., 2022)

Research suggests that regular and appropriate physical activity can reduce the risk and slow the progression of glaucoma with complications by lowering intraocular pressure (IOP) and increasing blood flow to the optic nerve. However, excessive activity or heavy lifting should be avoided. Light-to-moderate activities such as walking, jogging, and yoga are highly recommended, while high-intensity exercise such as lifting heavy weights that involve holding your breath can increase IOP and be dangerous (Imrie & Tatham, 2016). Studies have found that people with short sleep duration (less than 3 hours per night) or chronic sleep disorders, such as sleep apnea, are at higher risk of glaucoma with complications. Sleep deprivation can disrupt the natural regulation of eye pressure, potentially increasing IOP (pressure within the eyeball), a major risk factor for glaucoma with complications (Bode et al., 2019).

Psychological stressors impact glaucoma with complications patients' biopsychosocial experiences and perceptions.

Research findings indicate that glaucoma with complications patients are profoundly impacted by psychological stressors, with many experiencing significant stress, disappointment, and hopelessness with many experiencing significant stress, disappointment, and hopelessness (Baek et al., 2023). Patients diagnosed with glaucoma glaucoma with complications often experience significant psychological distress, including stress, anxiety, and depression. This emotional burden is largely due to the chronic and progressive nature of the disease, which can lead to irreversible vision loss and a substantial reduction in quality of life (QOL). This reduction in QOL in glaucoma with complications patients is felt to be significant impairment in daily activities such as reading, walking, and driving (Isserow et al., 2025).

Psychological stressors impact glaucoma with complications patients' biopsychosocial experiences and perceptions.

Research findings indicate that glaucoma with complications patients are profoundly impacted by psychological stressors, with many experiencing significant stress, disappointment, and hopelessness (Baek et al., 2023). Patients diagnosed with glaucoma with complications often experience significant psychological distress, including stress, anxiety, and depression. This emotional burden is largely due to the chronic and progressive nature of the disease, which can lead to irreversible vision loss and a substantial reduction in quality of life (QOL). This reduction in QOL in glaucoma with complications patients is felt to be significant impairment in daily activities such as reading, walking, and driving (Isserow et al., 2025).

Research shows that psychological stress can worsen glaucoma with complications by affecting the activity of the sympathetic nervous system, which can increase intraocular pressure (IOP), or the fluid pressure inside the eye, which is important for maintaining the shape and function of the eye, and blood pressure, both of which are associated with disease progression (Kuang & Li, 2010). Reducing intraocular pressure (IOP) in POAG is the gold standard approach to prevent further optic nerve head damage and the development of glaucoma. Stress mitigation techniques can reduce the risk of glaucoma. Mindfulness, relaxation training and music have been shown to be effective in reducing stress and lowering intraocular pressure (Keren et al., 2021). Research shows that psychological stress can worsen glaucoma by affecting the activity of the sympathetic nervous system, which can increase intraocular pressure (IOP), or the fluid pressure inside the eye that is important for maintaining the shape and function of the eye, and blood pressure, both of which are associated with disease progression (Kuang & Li, 2010). Reducing intraocular pressure (IOP) in POAG is the gold standard approach to prevent further optic nerve head damage and the development of glaucoma. Stress mitigation techniques can reduce the risk of glaucoma. Mindfulness, relaxation training, and music have been shown to be effective in reducing stress and lowering intraocular pressure (Keren et al., 2021).

Glaucoma patients with complications are compliant with treatment, have regular doctor consultations, and gaps in treatment needs in relation to the level of self-care skills of glaucoma patients with complications.

Adherence refers to how well people follow their doctor's orders when taking medications. For their health, glaucoma with complications patients must take their medications as prescribed by their doctor (Birhanie et al., 2022). Adherence to glaucoma with complications treatment regimens,

which often include a combination of eye drops and/or oral medications, is crucial for controlling intraocular pressure and preventing further optic nerve damage and vision loss (Robin & Grover, 2011). Adherence to glaucoma with complications treatment is crucial for avoiding the risk of disease progression and minimizing the likelihood of visual impairment and blindness. Studies investigating adherence levels and identifying potential risk factors for poor adherence are needed because eye drops remain the primary treatment of choice for glaucoma with complications (Oltramari et al., 2024). According to Orem's Self-Care Deficit Theory of Nursing (SCDNT), medication adherence aligns with universal self-care requirements, specifically the need to seek help and live in harmony with one's social group, in this case, following medical advice given by a physician (Jaya Kumar et al., 2022).

The study results showed that scheduled visits to the ophthalmologist are very important to monitor IOP, the condition of the optic nerve, and adjust the treatment plan if necessary (Mathew & Sivak, 2024). The results of the study are in accordance with standard medical practice after glaucoma with complications surgery, patients should attend routine scheduled consultations with their ophthalmologist. These postoperative visits are very important to: ensure the surgery successfully lowered the intraocular pressure (IOP) and remained stable, address potential problems such as infection, inflammation, or scarring that could affect the outcome of the surgery, modify the remaining eye drop regimen as the eye heals and track the patient's visual recovery and overall eye health (MMed et al., 2023), (Lozano et al., 2024). Orem's Self-Care Deficit Nursing Theory (SCDNT) explains that scheduled postoperative visits for glaucoma with complications patients are appropriate because patients may experience self-care deficits during the recovery period, thus requiring support from healthcare professionals (Yanli et al., 2024)

The results of the study showed that glaucoma with complications patients perceived unmet care needs and consequently emphasized self-care management. This finding is consistent with the application of Orem's Self-Care Deficit Nursing Theory (SCDNT). This theory highlights that when individuals, such as glaucoma with complications patients, experience deficits in their ability to perform necessary self-care activities, they require nursing intervention or must rely more on their own self-care actions to effectively manage their health condition (Khademian et al., 2020).

Glaucoma patients with complications experience ongoing pain after surgery and manage emotional responses to adaptive

responses to treatment and glaucoma conditions with complications

Research results show that post-surgery glaucoma patients still experience discomfort. They experience a gritty sensation in the eyes, resulting in itchy eyes, blurred vision, pain in bright light, and mild swelling of the eyelids, resulting in eye pain. The most common cause of itchy or gritty eyes is the stitches used to close the surgical wound, which usually dissolve on their own within 4 to 6 weeks. Post-surgical inflammation and swelling are common and can cause pain, redness, and blurred vision, which usually subside within a few days to a few weeks. The formation of a drainage bleb can affect the distribution of tears over the cornea, causing dryness, discomfort, and a foreign body sensation. This may require ongoing management with eye drops or lubricating ointments. Mild, transient pain is normal in the first few days after surgery and usually responds well to over-the-counter pain relievers such as acetaminophen (Abe et al., 2024).

Research shows that glaucoma with complications patients manage their stress through prayer, which increases their self-acceptance of their disease. In medical and psychological contexts, this approach aligns with the practice of "spiritual coping," in which individuals utilize their religious or spiritual beliefs and activities, such as prayer, to overcome challenges and find peace. This coping mechanism can lead to improved emotional well-being and better adaptation to chronic health situations (Hua et al., 2023).

CONCLUSION

Glaucoma with complications patients demonstrate a good understanding of the importance of self-care, including seeking professional medical help, recognizing activity limitations, and requiring family support for tasks such as administering eye drops. They practice healthy lifestyle habits, such as limiting certain foods and ensuring adequate sleep, as recommended by their caregivers. However, despite good adherence to treatment and doctor consultations, significant self-care deficits exist, stemming not from a lack of motivation but from external structural and financial barriers. Limited local medical facilities force patients to travel out of town, incurring additional costs. Psychologically, patients face significant stressors such as disappointment and depression. Post-surgery, they still experience residual symptoms such as a gritty sensation and photophobia. Patients manage these emotional and physical challenges through adaptive coping mechanisms, such as emotional control, uplifting, and prayer, leading to self-acceptance.

BIBLIOGRAPHY

Abe, R. Y., Yamamoto, D. R., Souto, F. M. S., Vasconcellos, J. P. C., & Costa, V. P. (2024). Evaluation of early ocular discomfort after glaucoma surgery: trabeculectomy versus Ahmed glaucoma valve implantation. *Oftalmol*, 87(3), 1–5. <https://doi.org/10.5935/0004-2749.2023-0033>

Ananda, E. P. (2016). The Relationship Between Knowledge, Sickness Period, and Intraocular Pressure to the Quality of Life of Glaucoma Patient. *Jurnal Berkala Epidemiologi*, 289–300. <https://doi.org/10.20473/jbe.v4i2.2016.288-300>

Astari, D. W. (2022). Managing A Patient With Traumatic Glaucoma: A Case Study. *Oftalmologi Jurnal Kesehatan Mata Indonesia*, 4(2), 17–22. <https://doi.org/10.11594/ojkmi.v4i2.33>

Baek, S. U., Kim, J.-S., Kim, D. W., Ha, A., & Kim, Y. K. (2023). Association between psychological vulnerability and glaucoma progression: Protocol for a multicenter prospective cohort study in South Korea. *Public Library of Science*, 18, 1–12. <https://doi.org/10.1371/journal.pone.0292599>

Birhanie, S. A., Getie, G. A. G. A., Tesfa, M. T., Henok Mulugeta, H. M., Gedfew, M. G., & Mekete, Y. S. M. S. (2022). Treatment adherence and associated factors among glaucoma patients attending Ophthalmic units of referral hospitals in North West Ethiopia, 2019. *Front. Ophthalmol*, 1–15. <https://doi.org/10.3389/fopht.2022.985893>

Bode, W. S. C., Elsman, E. B. M., Aa, H. P. A. van der, Vries, R. de, Rens, G. H. M. B. van, & Nispen, R. M. A. van. (2019). The association between visual impairment and fatigue: a systematic review and meta-analysis of observational studies. *Ophthalmic Physiol Opt*, 39(6), 399–413. <https://doi.org/10.1111/opo.12647>

Braun, V., & Clarke, V. (2006). *Thematic Analysis: A Practical Guide*. SAGE.

Deemer, A. D., Goldstein, J. E., & Ramulu, P. Y. (2022). Approaching rehabilitation in patients with advanced glaucoma. *Eye*, 37(10), 1993–2006. <https://doi.org/10.1038/s41433-022-02303-z>

Dietze, J., Blair, K., Zeppieri, M., & Havens, S. J. (2024). Glaucoma. *StatPearls*, 1–12.

Goldberg, I. K. (2016). *Glaukoma: Langkah Penting Selamatkan Penglihatan Anda*. Kugler Publications.

Hajar, S., Emril, D. R., Firjatullah, & Rizkidawati. (2021). Neurological Disorders In Glaucoma. *Jurnal Sinaps*, 4(1), 1–12.

Hua, Y., LU, H., Dai, J., Zhou, Y., Zhou, W.,

Wang, A., Chen, Y., & Liang, Y. (2023). Self-management challenges and support needs among patients with primary glaucoma: a qualitative study. *BMC Nurs*, 22(426), 1–10. <https://doi.org/10.1186/s12912-023-01527-y>

Imrie, C., & Tatham, A. J. (2016). Glaucoma: the patient's perspective. *British Journal of General Practice*, 66(646), 371–373. <https://doi.org/10.3399/bjgp16X685165>

Indonesia, K. M. K. R. (2023). *Pedoman Nasional Pelayanan Kedokteran Tata Laksana Glaukoma*.

Ismandari, F., & Helda. (2011). Kebutuhan pada Pasien Glaukoma Primer di Rumah Sakit Umum Dr. Cipto Mangunkusumo Jakarta. *Kesmas: National Public Health Journal*, 5(4), 185–192. <https://doi.org/10.21109/kesmas.v5i4.140>

Isserow, L. J., Harris, D., Schanzer, N., Siesky, B., & Verticchio Vercellin, A. (2025). Impact of Physiological and Psychological Stress on Glaucoma Development and Progression: A Narrative Review. *Multidisciplinary Digital Publishing Institute (MDPI)*, 61(3), 1–14. <https://doi.org/10.3390/medicina61030418>

JayaKumar, M., Pappiya, E. M., Baalharith, I. M. Al, & Algrd, H. S. (2022). Application of Orem's Self-Care Deficit Nursing Theory on Self-Efficacy and Quality of Life Among Patients with Bronchial Asthma: Randomized Controlled Study. *International Journal of Nursing Care*, 10(2), 31–37. <https://doi.org/10.37506/ijonc.v10i2.18742>

Juanito, J., Supit, W. P., & Rares, L. M. (2021). Pengaruh Kafein terhadap Tekanan Intraokular. *Medical Scope Journal (MSJ)*, 2(2), 48–52. <https://doi.org/10.35790/msj.2.2.2021.31851>

Karimun, M. V., Mumtaz, Z., Mumtaz, S., Hidayah, H., & Hawa, S. (2023). DONASI KACAMATA UNTUK PENDERITA GLUKOMA DI KABUPATEN KARIMUN : Bahasa Indonesia. *JURNAL AL MUHARRIK*, 3(2), 118–121. <https://ejournal.mumtaz.ac.id/index.php/almuharrik/article/view/153>

Keren, S., Waisbord, M., Gomel, N., Cohen, Y., & Kurtz, S. (2021). Influence of mental stress on intraocular pressure and visual field testing: is there a white coat syndrome in glaucoma? *Full Text Links Springer Full Text Link Actions Page Navigation Title & Authors Abstract Similar Articles Cited by References MeSH Terms Related Information LinkOut - More Resources Graefes Arch Clin Exp Ophthalmol*, 260(1), 209–214. <https://doi.org/10.1007/s00417-021-05315-9>

Khademian, Z., MS, F. K. A., & Gholamzadeh, S. (2020). The Effect of Self Care Education Based on Orem's Nursing Theory on Quality of Life and Self-Efficacy in Patients with Hypertension: A Quasi-Experimental Study. *Int J Community Based Nurs Midwifery*, 8(2), 140–149. <https://doi.org/10.30476/IJCBNM.2020.81690.0>

Kuang, Y., & Li, J.-M. (2010). Progress of primary angle-closure glaucoma in patients with peri-operative cellular immunity and related factors. *Journal of Dalian Medical University*, 32(1), 107–109. <https://doi.org/10.3390/medicina61030418>

Lee, H. ae, Kim, S. N., Kim, H. Y., & Sohn, S. K. (2024). Illness Experience of Glaucoma Patients. *Korean Academy of Community Health Nursing*, 35(1), 99–111. <https://doi.org/10.12799/rcphn.2024.00458>

Li, X., Zhang, K., Xu, D., & Xu, Y. (2023). The effect of Orem's nursing theory on the pain levels, self-care abilities, psychological statuses, and quality of life of bone cancer patients. *Am J Transl Res*, 15(2), 1438–1445. <https://pubmed.ncbi.nlm.nih.gov/36915789/>

López-Gil, J. F., Fernandez-Montero, A., Bes-Rastrollo, M., Moreno-Galarraga, L., Kales, S. N., Martínez-González, M. Á., & Moreno-Montañés, and J. (2024). Is Ultra-Processed Food Intake Associated with a Higher Risk of Glaucoma? A Prospective Cohort Study including 19,255 Participants from the SUN Project. *Nutrients*, 1–13. <https://doi.org/10.3390/nu16071053>

Lozano, A. C., Serrano, A., & Mónica Pardo Bayona, M. (2024). Telemedicine for Screening and Follow-Up of Glaucoma: A Descriptive Study. *Telemedicine and E-Health*, 30(7), 1901–1908. <https://doi.org/10.1089/tmj.2023.0676>

Mahendra, B. I., Gustianty, E., & Rifada, R. M. (2022). Karakteristik Klinis Glaukoma Primer Sudut Tertutup di Pusat Mata Nasional Rumah Sakit Mata Cicendo pada Tahun 2020. *Kedokteran Dan Kesehatan : Publikasi Ilmiah Fakultas Kedokteran Universitas Sriwijaya*, 9(2), 236–244. <https://doi.org/10.32539/jkk.v9i2.290>

Mathew, D., & Sivak, J. (2024). Lipid mediators in glaucoma: Unraveling their diverse roles and untapped therapeutic potential. *Prostaglandins & Other Lipid Mediators*, 171, 1–12. <https://doi.org/10.1016/j.prostaglandins.2024.106815>

MMed, Y. F. L., § J. C. P., MD, R. H., Wong, T. T., MMed, C. L. H., Lamoureux, E. L., & Annabel C.Y. Chew. (2023). Three-year Outcomes of an Expanded Asynchronous Virtual Glaucoma Clinic in Singapore. *Asia-Pacific Journal of Ophthalmology*, 12(4),

364–369.

<https://doi.org/10.1097/APO.0000000000000000>

0620

Nurhayati, A. S., Yusuf, M., & Sapitri, R. L. (2023). The relationship of self-concept with the coping mechanism in post operating glaucoma patients in eyes poly Meuraxa Hospital Banda Aceh. *SAGO Gizi Dan Kesehatan*, 4(2), 141–146. <https://doi.org/10.30867/gikes.v4i2.1099>

Oltramari, L., Mansberger, S. L., Souza, J. M. P., Souza, L. B. de, & AbeL, S. F. M. de A. & R. (2024). The association between glaucoma treatment adherence with disease progression and loss to follow-up. *The Association between Glaucoma Treatment Adherence with Disease Progression and Loss to Follow-up*, 14, 1–7. <https://doi.org/10.1038/s41598-024-52800-2>

Patel, H., Szkinc-Olsson, G., & Liddawi, M. L. Al. (2021). A qualitative study of nurses' experiences of self-care counseling in migrant patients with heart failure. *International Journal of Nursing Sciences*, 8(3), 279–288. <https://doi.org/10.1016/j.ijnss.2021.05.004>

Perdami. (2018). *Pedoman Nasional Pelayanan Kedokteran Glaukoma*.

Robin, A., & Grover, D. S. (2011). Compliance and adherence in glaucoma management. *Indian J Ophthalmol*, 59(1), S93–S96. <https://doi.org/10.4103/0301-4738.73693>

Rukminingsih. (2020). *Metode Penelitian Pendidikan : Penelitian Kuantitatif, Penelitian Kualitatif dan Penelitian Tindakan Kelas*. Erhaka Utama.

Sipayung, L. P., Hasibuan, R. K., & Siregar, S. H. (2023). Gambaran Pengetahuan Lansia Tentang Glukoma Di Rumah Sakit Khusus Mata Medan Baru. *Jurnal Kesehatan Masyarakat Darmais (JKMD)*, 2(2), 100–104.

Yang, Y., Zhou, H., & Hong, Z. (2024). Glaucoma and dietary links: insights from high-salt intake, the Mediterranean diet, and specific nutrients. *Front Nutr*, 1–10. <https://doi.org/10.3389/fnut.2024.1461748>

Yanli, Y. Z., Cheng, Y., Liang, Y., Mengfei Shao, & Chen, A. (2024). Based on the relationship between anxiety of existential meaninglessness, hope level, and fear of progression, explored the effect of preoperative nursing with Orem theory in the senile cataract population. *Front. Psychol*, 15, 1–10. <https://doi.org/10.3389/fpsyg.2024.1358229>