

Knowledge and attitude of patients with ocular surgical conditions towards eye surgery at Jinja Regional Referral Hospital, Uganda. A cross-sectional study.

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Abstract.

Background.

Globally, most patients with ocular sight problems demanding surgery still lack adequate knowledge and have negative attitudes towards eye surgery. This study investigates the knowledge and attitudes of patients with ocular conditions towards ocular surgery at Jinja Regional Referral Hospital.

Methodology.

A descriptive cross-sectional study design was used, and simple random sampling techniques were employed with the use of structured questionnaires to collect data from a total of 120 participants. Data was analyzed using Microsoft Excel. The data was presented in the form of tables, charts, and percentages.

Results.

The majority of the participants (62.5%) were male (50%), and were aged 57 years. 62.5% of the participants resided in urban areas. The majority of the participants (70.8%) knew about eye surgery, but detailed knowledge of specific surgical types was limited (33.3%). Attitudes toward eye surgery were generally negative in that (41.7%) of the participants deemed eye surgery very unsafe, (20%) strongly disagreed that eye surgery would improve their vision, and 12.5% reported that they would strongly disagree to go for eye surgery in case it was recommended by the eye specialist.

Conclusion.

People knew about eye surgery but lacked information about the specific types of eye surgery done. The attitudes towards eye surgery were generally poor.

Recommendation.

The study highlights the need for targeted educational interventions to enhance knowledge and address misconceptions about ocular surgery in order to reduce the fear of eye surgery among people and increase its uptake.

Keywords: Knowledge, Ocular surgical conditions, Eye surgery, Jinja Regional Referral Hospital, Uganda.

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Background.

Globally, most patients with ocular sight problems demanding surgery still lack adequate knowledge and have negative attitudes towards eye surgery. Although eye surgery has proven to be an effective method of managing various eye conditions like glaucoma, and sometimes it is the only treatment available, for example, in cataract management. However, many people in the communities are reluctant to undergo eye surgery due to negative perceptions and a lack of sufficient knowledge about the significance of surgery.

In Nigeria, a study conducted to assess the knowledge and attitudes of cataract patients regarding cataract surgery, it showed that 41.7% of the respondents did not know what cataract was whereas 18.3% of the respondents said that

medication was the effective cataract treatment, 15% said treatment was couching while 58.3% did not know that there are different surgical techniques for cataract management. 66.7% of the patients had a negative attitude towards cataract surgery. The study revealed that knowledge of cataract patients regarding cataract and its corresponding surgery is poor (Abdulmaleek et al, 2017). In Uganda, a study conducted at Benedictine Eye Hospital in Tororo District among 260 participants indicated that 21.9% of the patients declined eye surgery even when it was necessary. The reasons for this were fear of the pain of surgery and that the eye may become spoiled due to surgery (Proscovich, 2018).

In Jinja, there is no comprehensive study that has ever been conducted to determine the knowledge and attitude of the

patients towards eye surgery. Similar challenges reported in different parts of the world are being faced in Jinja, and therefore, this calls for a study to assess people's knowledge of the subject, identify any barriers that hinder them from receiving surgery, and suggest possible solutions to these challenges to improve service delivery and uptake of eye surgery. Therefore, this study investigates the knowledge and attitudes of patients with ocular conditions towards ocular surgery at Jinja Regional Referral Hospital.

Methodology

Study Design

A descriptive cross-sectional study design was employed, and it involved quantitative techniques in data collection. This study design was chosen because it requires a shorter period in terms of data collection, analysis, and interpretation, which made it cost-effective.

Study Area

The study was conducted at Jinja Regional Referral Hospital at the eye clinic and the eye ward. The hospital is located in Jinja city in the Eastern Region of the country.

Study population

The study involved 120 respondents who attended the eye clinic and were admitted to the eye ward at Jinja Regional Referral Hospital from September 2024 to November 2024.

Inclusion criteria

The study involved only patients who consented to participate in the study and had come for eye care services at Jinja Regional Referral Hospital, and were not seriously ill with a sound mind.

Sample size determination

The sample size for the study was calculated using Cochran's formula (1977)

Where;

n = sample size

z = Z score (1.96) for a 95% confidence level

p = prevalence of 5.5% from (Nkiruka 2020)

q = $1-p$

d = margin of error that is 5% (0.05)

Therefore;

This was the minimum sample size, but for more accuracy, I used 120 as my sample size.

Sampling Technique

The study employed probability-sampling techniques, whereby a simple random sampling method was used

because it offers an equal chance to all respondents to participate in the study, eliminates bias, and is also cheaper compared to other methods.

Sampling Procedure

To ensure simple random sampling, all patients available were assigned unique numbers indicating yes or no, starting from one up to the last. The numbers were written on small pieces of paper, carefully folded, and placed in a basin. The researcher put on a blind fold and then picked numbers at random; all those that were chosen then participated in the study.

Data Collection Method

An interview method was used to collect data from the chosen respondents.

Data Collection Tools

Data was collected using structured questionnaires that had structured and specific questions in questionnaire form. This questionnaire seeks information like knowledge and attitude towards eye surgery and socio-demographic data.

Data Collection Procedure

Permission was obtained from the school research committee through a letter sent to the hospital director of Jinja Regional Referral Hospital. The hospital director issued an acceptance letter, which was then offered to the person in charge of the eye clinic. The researcher was then allowed to proceed and approach patients to obtain data. The researcher read and interpreted the questions on the structured questionnaire for the respondents in order for them to understand. The responses were given in the languages of the correspondents and then noted in English by the researcher. Lastly, the respondents were thanked for their cooperation.

Study Variables.

Independent variable

Independent variables included the social factors, like the influence of family and friends, and the demographic factors, like the age of clients and their gender.

Dependent variable

The dependent variable was the patient's decision to undergo surgery.

Quality control

Pre-visiting

Before the study, the researcher visited Jinja Regional Hospital Eye Department and obtained permission from the relevant authorities in order to carry out the study.

Pre-testing of the questionnaire

This was in Hoima Regional Referral Hospital, and 10 questionnaires were issued. This helped to ensure the reliability of the questionnaire; the questionnaire was then revised to meet the quality required for data collection.

Data processing, analysis, and presentation

Since the data collected was quantitative, it was tallied and presented using tables and figures, like a pie chart and a bar graph, among others.

Ethical approval.

A permission letter from the Principal of the Ophthalmic Clinical Officers' school was taken to the Hospital Director, JRRH, and permission to conduct the study was requested.

Informed consent

A consent form was presented to the correspondents, and they were requested to sign it. Before data collection, the respondents were assured that the information collected was to be kept safe and used for only academic purposes. Patients were also informed that their real names were not to be used in the study; hence, no one could know that the information was collected from them.

Results.

Demographic Characteristics of Participants (n=120)

Table 1: socio-demographic characteristics of the people who were interviewed for the study

Study variables		frequency	Percentage (%)
Age(yrs.)	16-36	15	12.5
	37-46	25	20.8
	47-56	20	16.7
	57-66	30	25
	66 and above	30	25
Address	Rural	45	37.5
	Urban	75	62.5
Gender	Male	75	62.5
	Female	45	37.5
Education level	None	36	30
	Primary	45	37.5
	Secondary	35	29.2
	Diploma	4	3.3
Tribe	Musoga	70	58.3
	Muganda	25	20.8
	Itesot	2	2.5
	Lugbara	1	4.2
	Munyoro	5	4.2
	Mutooro	5	4.2
	Mukiga	7	5.8
Occupation	Farmer	72	60
	Teacher	23	19.2
	Self-employment	10	8.3
	Entrepreneur	10	8.3
	Unemployment	5	4.2
Marital status	Married	65	54.2
	Single	30	25
	Widowed	10	8.3
	Bachelor	10	8.3
	Divorced	5	4.2

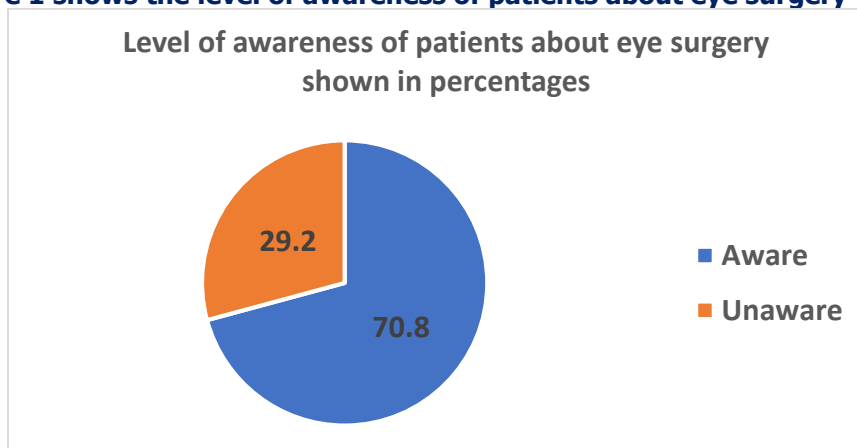
Religion	Catholic	35	29.2
	Anglican	25	20.8
	Moslem	25	20.8
	Born again	20	16.7
	Traditionalist	5	4.2
	Seventh-day Adventist	10	8.3
Means of transport	Taxi	30	25
	Boda boda	20	16.7
	Walked	60	50
	Bicycle	10	8.3

Results obtained in Table 1 showed that of the 120 participants, the majority, 75(62.5%), were males and resided in urban areas. Half of the participants (50%) were 57. The majority of the respondents (67.5%) either had no

formal education or had obtained primary level education, more than half (58.3%) were Basoga, and the majority (60%) were farmers. Half of the respondents (50%) walked to the hospital.

Knowledge about Eye Surgery (n=120). **Patients' knowledge about eye surgery**

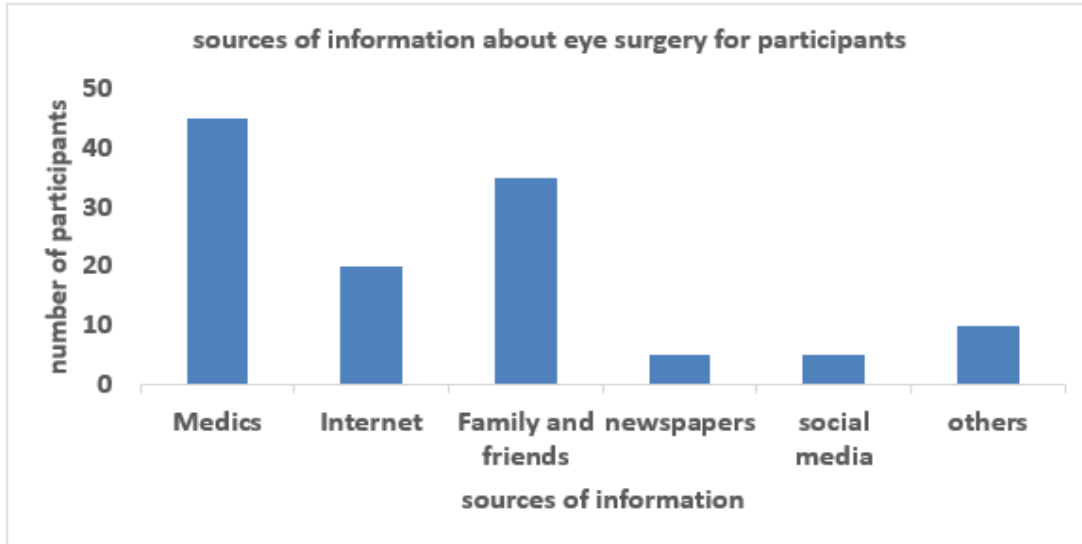
Figure 1 shows the level of awareness of patients about eye surgery



The study showed that the majority of the participants (70.8%) were aware of eye surgery, while only 35 participants (29.2%) did not know about eye surgery.

Sources of information about eye surgery (n=120)

Figure 2: showing sources of information about eye surgery for participants

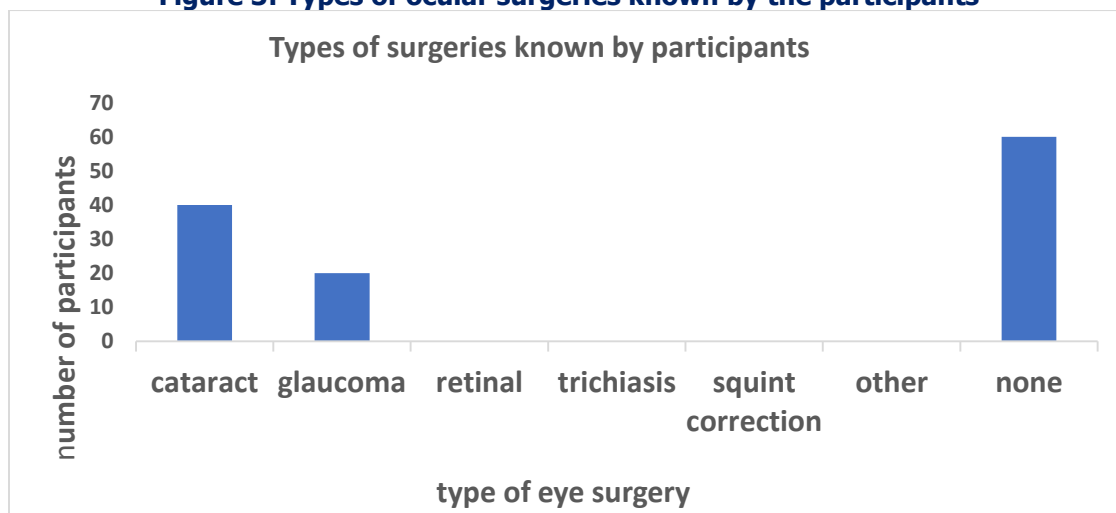


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Results showed that less than half of the respondents (37.5%) reported that they received information from medical professionals, followed by 35(29.1%) from family and friends, together with other sources.

Types of ocular surgeries known by respondents (n=120)

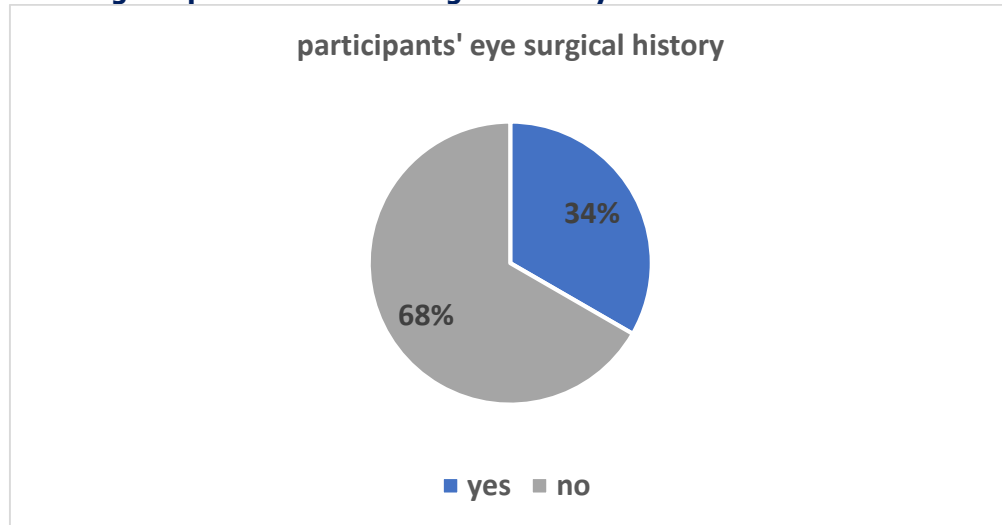
Figure 3: Types of ocular surgeries known by the participants



It was noted that half of the participants (50%) did not know any type of ocular surgery, while the most known was cataract surgery by 40(33.3%) participants.

History of eye surgery (n=120)

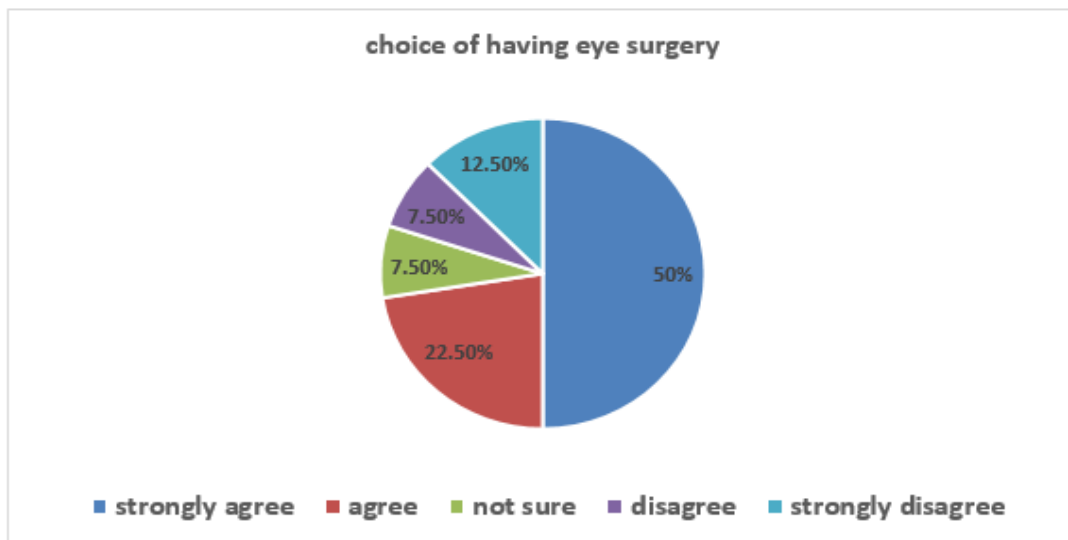
Figure 4: showing the patient's ocular surgical history



In terms of the history of eye surgery, it was noted that more than half of the participants (68%) denied ever having any eye surgery as compared to those who had ever had eye surgery (34%).

Attitudes towards Eye Surgery (n=120).
Decision of respondents to undergo eye surgery

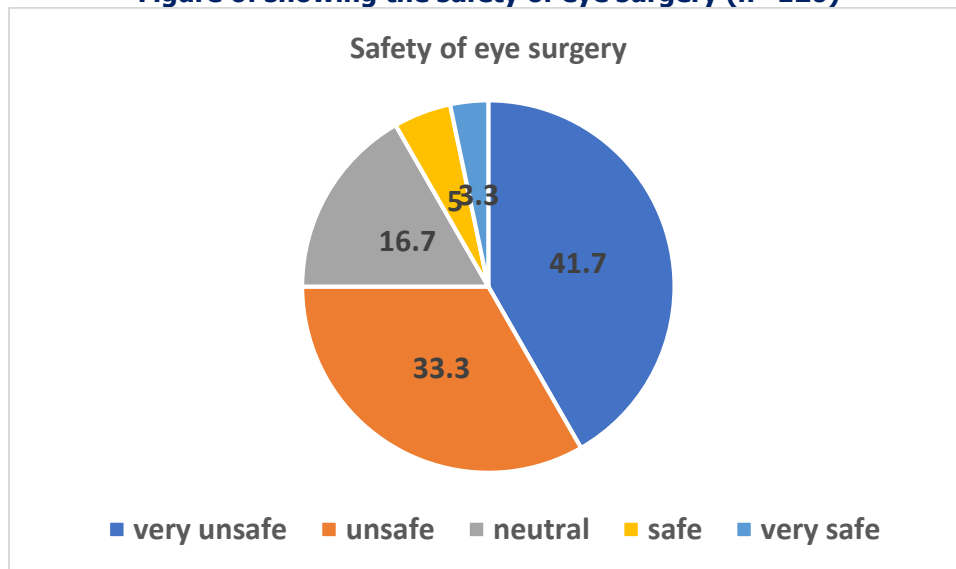
Figure 5: showing the respondents' choice of having eye surgery



About the participants' decision to undergo ocular surgery if a doctor recommended it, half of the respondents said that they would strongly agree, while 12.5% reported that they would strongly disagree.

The importance of the safety of eye surgery among the participants

Figure 6: showing the safety of eye surgery (n=120)



It was noted that less than half of the participants (41.7%) deemed eye surgery very unsafe, some respondents (33.3%) said surgery was unsafe, and a few participants (16.7%) did not know the relevance of the safety of eye surgery.

Concerns carried by the respondents about eye surgery (n=120)

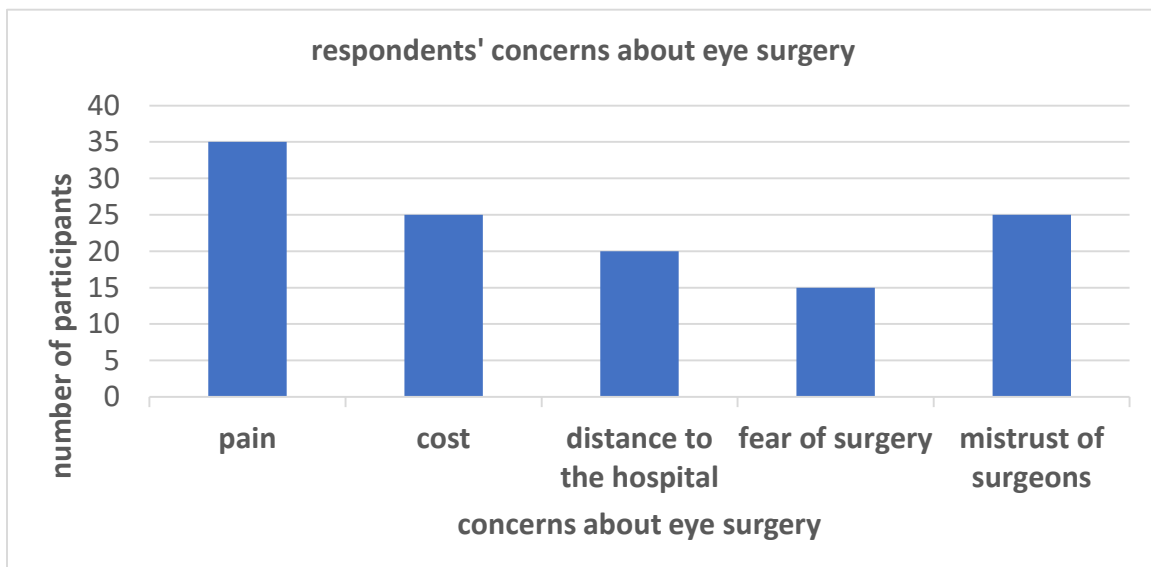


Figure 7: A graph showing respondents' concerns about eye surgery

The most reported concerns were pain during surgery (29.2%), costs incurred (20.8%), and mistrust of surgeons (20.8%).

Discussion.
Socio-demographic characteristic.

The study aimed at determining the socio-demographic characteristics of patients with ocular conditions at Jinja Regional Referral Hospital, and the following findings were revealed: the majority of patients seeking eye surgery were males aged 57 years and above, residing in urban areas. Most of the participants were farmers with primarily primary-level education. These findings are consistent with global patterns in Florida, where aging populations are more susceptible to ocular conditions such as cataracts (Nathaniel et al, 2022). The dominance of low educational levels among participants also highlights a potential barrier to accessing detailed healthcare information.

Knowledge about eye surgery.

The objective was to determine the knowledge of patients with ocular conditions about ocular surgery, and these were the findings: While 70.8% of participants were aware of eye surgery, detailed knowledge was limited. Cataract surgery was the most recognized type, though half of the respondents were unaware of any specific ocular surgeries. The primary sources of information were medical professionals (37.5%), emphasizing the critical role of healthcare workers in patient education. These findings were consistent with studies in India, where awareness about eye surgery was high but participants lacked knowledge about types of surgeries done and intraocular lenses implanted, for example, during cataract surgery (Kamal et al, 2017).

Attitudes towards eye surgery.

The study aimed at determining the attitudes of patients with ocular conditions towards eye surgery at Jinja Regional Referral Hospital, and the following findings were revealed: generally negative attitudes towards eye surgery, with a significant proportion perceiving it as unsafe. Fewer than half of the participants expressed confidence in its ability to improve vision. Participants reported their biggest concerns about eye surgery being pain during surgery and mistrust of the surgeons. These findings correlate with similar studies in Ethiopia, where around 74 participants declined surgery, and many reported barriers being cost and the distances travelled to the hospital (Tedla et al, 2018). These findings suggest a gap in trust and understanding of surgical outcomes, possibly influenced by misinformation or previous negative experiences.

Conclusions

The study findings established that: Awareness of eye surgery among participants was relatively high, but specific knowledge about surgical procedures was limited, educational disparities significantly influenced participants' understanding and attitudes toward eye surgery, and negative perceptions regarding the safety and outcomes of

eye surgery contributed to hesitance in seeking surgical solutions for ocular conditions. In conclusion, patients have a generally negative attitude towards eye surgery, coupled with very scanty information about the details of ocular surgery, which negatively impacts their decision on whether to undergo eye surgery.

Recommendations.

Healthcare providers should aim to immediately eliminate fear and misconceptions surrounding ocular surgery through conducting community outreach programs to educate the public about the safety, benefits, and types of ocular surgery available at Jinja Regional Referral Hospital, and also increase patient counseling sessions before and after surgery to address misconceptions and build trust in surgical procedures.

The Government should instantly develop and implement policies to improve health literacy, especially among rural and less-educated populations, through targeted educational initiatives, and provide resources to train healthcare professionals in communication skills to effectively convey surgical information to the patients, especially in more rural areas.

For any future research, they should investigate the underlying causes of negative attitudes towards eye surgery to develop tailored interventions and also explore the role of cultural beliefs and past experiences in shaping perceptions of eye surgery among the patients.

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List of abbreviations.

JRRH	Jinja Regional Referral Hospital
OCO	Ophthalmic Clinical Officer
WHO	World Health Organization
NRH	National Referral Hospital
UAHEB	Uganda Allied Health Examination Board
CSR	Cataract surgical rates.

Source of funding

The study was not funded.

Conflict of interest.

There is no conflict of interest.

Availability of data.

Data used in this study are available upon request from the corresponding author.

Author's contribution.

SK designed the study, conducted data collection, cleaned and analyzed data, drafted the manuscript, and supervised all stages of the study from conceptualization of the topic to manuscript writing and submission.

Author's biography

Steven Kamulegeya is a student of the Diploma in Clinical Ophthalmology at the Ophthalmic Clinical Officers' Training School, Jinja.

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