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Perception of Eye Surgeries in a Tertiary Hospital, South-Eastern Nigeria

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Abstract
OBJECTIVE: *To evaluate the perception of ophthalmic surgeries among ophthalmic outpatients of Enugu State University of Science and Technology (ESUT) Teaching Hospital, Parklane, Enugu.*
METHODS: *A hospital based cross-sectional descriptive study. Eligibility criteria included consented adults aged 18 years or above, who attended the eye clinic within the period of study irrespective of patient's ocular pathology. The study instrument used was a pretested, researcher-administered structured questionnaire containing Participant's demographics and their perceptions of eye surgeries. Data was analyzed using Statistical Package for Social Science (SPSS), version 20.0. Chi-square(x^2) was used for class comparisons while student T-test was used to compare means. A P<0.05 was considered statistically significant.*
RESULTS: *There were 125 participants comprising of 54 (43.2%) males and 71(56.8%) females (M:F =1:1.3) with a mean age of 50.58 $\pm$ 16.13 SD years. The participants were mainly married 88 (70.4%), 51 (40.8%) civil servants and 61 (48.8%) had tertiary education. All the participants were aware that surgery was a treatment option for some eye diseases, cataract surgery predominating (101, 80.8%). Hospital was the most common source of information among the subjects (63, 50.4%) and religious institutions the least (2, 1.6%). Eighty eight percent (88%) of the subjects believed that surgery can improve vision but 30.4% affirmed that they will never want to have any eye surgery. Being female (p=0.012) and having tertiary education (p=0.011) were significant variables for refusal.*
CONCLUSION: *This study strengthens the argument for improved communication with our patients in the strive to increase surgical uptake. But it has also revived the need to further interrogate the roles of the female gender and the unlikely duo of higher education and religious exposure in the resistance to eye surgical interventions.*

Key Words: *perception, eye, surgeries, tertiary hospital.*

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I. Introduction

Blindness is one of the most tragic-yet often avoidable- disabilities in the developing countries.[1] Actions by individuals, families and communities, as well as eye care professionals, are vital to achieving the ambitious target of "Vision 2020: the right to sight," which aims to prevent 100 million cases of blindness by the year 2020.[2]

Blindness has severe economic repercussions and adversely affects the productivity of a country. Cataract blindness, itself, is a public health problem of major proportions in developing countries.[3] Cataract is considered the major cause of blindness[4] and visual impairment in adults above 60 years of age.[5] As life expectancy rises in developing countries, the number of individuals legally blind from cataract is expected to increase, and critical levels are foreseen in the near future.[6,7] Although worldwide, this is the most frequently performed surgical procedure in elderly people, the number of surgeries is still insufficient, if we consider the estimated incidence of cataract.[8]

Many reports have shown that fear is one of the reasons for poor cataract surgery uptake worldwide.[9,10] The fear of surgery and uncertainty of surgical outcome are the most common uptake barriers.[11] Apart from these genuine fears, the situation in Africa is made worse by ignorance of the processes involved in ophthalmic surgery. For instance, there is a believe that an ophthalmic surgeon brings out the eyeball from the eye socket before operating on it.[12] Worse still, these fears abound in patients who remain in their domains and do not come to hospitals to be counseled/educated about their misconceptions. All these constitute barriers to the uptake of

ophthalmic services and may be some of the reasons why the cataract surgical rate in Africa is the lowest world wide.[13]

Cataract and glaucoma are important treatable causes of blindness are important causes of childhood blindness requiring prompt surgery. Globally, there are 190,000 children who are blind from cataract.[14] Cataract in children may be present at birth (congenital cataract) or may appear anytime during the first few years of life (developmental cataract). Childhood cataract is the most common treatable cause of childhood blindness, being responsible for 10-30% of all childhood blindness. A recent national survey in Bangladesh showed that 1 in 3 blind children is unnecessarily blind from congenital/developmental cataract.[15] This can be treated by surgery, thus reducing the burden of childhood blindness. Children who are blind have to overcome a lifetime of emotional, social and economic difficulties, which affects the child, the family and the society.[16-17] Loss of vision in children adversely affects their education, employment and social life.[18]

Eye surgery also known as ocular surgery is a surgery performed on the eye or its adnexia, typically by an ophthalmologist.[19] Eye surgery may be done under general or local anesthesia. The role of eye surgeries in improvement of vision (as seen in refractive surgery), in treatment of blindness (as seen in cataract surgery), and in prevention of blindness (as seen in glaucoma surgery) cannot be over emphasized. In accordance with vision 2020, eye surgery is one of the eye care services used to improve vision and prevent blindness.

Apart from cataract surgery, numerous surgeries have been developed to treat ophthalmic diseases. The notable ones include glaucoma surgery, pterygium surgery, corneal-related surgeries including refractive surgery and vitreo-retinal procedures.

To achieve the target of vision 2020, it is important to evaluate patients' perception to eye surgeries in order to increase the timely uptake of ophthalmic surgeries and optimize visual outcome and possibly prolong patients' life expectancy.[20]

AIM: This study aims to evaluate the perception of ophthalmic surgeries among patients attending ophthalmic outpatient clinic in ESUT Teaching Hospital Parklane, Enugu, South-Eastern Nigeria.

II. Methods:

This was a hospital base cross-sectional descriptive study done in March, 2019. All study subjects were recruited from Ophthalmology clinic of ESUTH Teaching Hospital Parklane, Enugu. The hospital is located in the center of Enugu Metropolis, a former capital of old Eastern Nigeria but currently the capital of Enugu State, one of the 36 States that make up Nigeria. It offers tertiary health care services to the inhabitants of Enugu and other contiguous states. Eligibility criteria included adults from 18 years or above who attended the eye clinic within the period of study irrespective of patient's ocular pathology. The study instrument used was a researcher-administered structured questionnaire containing participant's demographics and their perceptions of eye surgeries. Participants were enlightened before feeling the questionnaires. The questionnaires were pre-tested on different group of patients attending eye clinic elsewhere who were excluded from the final study.

Sample Size

The calculated minimal sample size of 85 was based on a previously reported 5.5% prevalence of ocular surgeries done in ESUT Teaching hospital Parklane Enugu from 2013 to 2016,[21] 95% confidence interval and a 5% margin of error. The calculated minimum sample size was inflated to a modified sample of 125 to improve data relevance.

Data Analysis

The collected data was analyzed using Statistical Package for Social Science (SPSS), version 20.0. Chi-square(x^2) was used for class comparisons while student T-test was used to compare means. A $P<0.05$ was considered statistically significant.

Ethics Approval

Prior to commencement of this study, an ethical clearance was obtained from ESUT Teaching Hospital Parklane Medical and Health Research Ethics.

III. Results:

The 125 participants in this study comprised of 54(43.2%) males and 71(56.8%) females with a male-to-female ratio of 1:1.3. Their age ranged from 18 years or above with a mean age of 50.58 $\pm$ 16.13 SD years. Married participants were 88(70.4%), single 22(17.6%), divorced 1(0.8%) and widowed 14(11.2%). Majority of the participants had tertiary education 61(48.8%), secondary education 27(21.6%), primary education 32(25.6%) and 5(4%) had no formal education. The socio demographic characteristics of the participants are shown in Table 1.

Table 1: Sociodemographics characteristics

Variables	Frequency	Percentage	Mean (SD)
Sex			
Male	54	43.2	
Female	71	56.8	
Total	**125**	**100**	
Age (Years)			50.58 (16.13)
Less than 25	7	5.6	
25-34	20	16.0	
35-44	18	14.4	
45-54	19	15.2	
55-64	33	26.4	
65 and above	28	22.4	
Total	**125**	**100.0**	
Marital Status			
Single	22	17.6	
Married	88	70.4	
Divorced	1	0.8	
Widowed	14	11.2	
Total	**125**	**100.0**	
Educational Status			
No formal education	5	4.0	
Primary school	32	25.6	
Secondary school	27	21.6	
Tertiary	61	48.8	
Total	**125**	**100.0**	
Occupation			
Student	9	7.2	
Civil servant	51	40.8	
Artisan	17	13.6	
Trading	26	20.8	
Farming	12	9.6	
Unemployed	7	5.6	
Doctor	3	2.4	
Total	**125**	**100.0**	
Religion			
Christian	124	99.2	
Muslim	1	0.8	
Total	**125**	**100.0**	

All the participants (100%) were aware that surgery is a treatment option for some eye diseases.

Majority of the participants (63; 50.4%) got their information on awareness of eye surgery from hospital. The sources of information from the remaining respondents were from radio (25; 20%), friends (22; 17.6%), family members (16; 12.8%), television (11; 8.8%), church (2; 1.6%), and others (5; 4%)- Table 2. The commonest type of eye surgery known to the participants was cataract surgery (101; 80.8%), glaucoma surgery was (54; 43.2%), pterygium surgery (6; 4.8%), other surgeries (1; 0.8%) and 6(4.8%) participants do not know any type of eye surgery (Table 2).

Table 2: Awareness, sources of awareness of eye surgery and types of eye surgeries

Variables	Frequency	Percentage (%)
Awareness of eye surgery as a treatment option		
Yes	125	100.0
No	0	0.0
Total	**125**	**100.0**
Sources of information on eye surgery		
Radio	25	20.0
Television	11	8.8
Family members	16	12.8
Friend	22	17.6
Church	2	1.6
Hospital	63	50.4
Others*	5	4.0
Types of eye surgery known		
Cataract	101	80.8
Glaucoma	54	43.2
Pterygium	6	4.8
Others**	1	0.8
None	6	4.8

*Print media, town criers, and posters. **Chalazion surgery, retinal detachment surgery, corneal repair

One hundred and ten (88%) participants believe that eye surgery can improve vision while others have different opinions (Table3). All the participants were afraid of eye surgery (100%). Reasons given for being afraid were: it is dangerous to operate on the eye (95; 76.4%), cost (8; 6.1%), and superstitious/religious belief (22; 17.5%)- Table 3.

Table 3: Perception of respondents on eye surgery

Variables	Frequency	Percentage (%)
Eye surgery improves vision		
Yes	110	88.0
No	3	2.4
Don't know	10	8.0
Makes eye worse	2	1.6
Total	**125**	**100.0**
Afraid of eye surgery		
Yes	100	100
No	0	0
Total	**125**	**100.0**
Reasons for being afraid of eye surgery		
It is dangerous to operate on the eye	95	76.4
Cost	8	6.1
Superstitious / religious belief	22	17.5
Total	**125**	**100**

The degree of fear for eye surgery was rated as follow: no fear (0; 0%), little fear (33, 26.4%) have some fear (33; 26.4%), have serious fear (21; 16.8%), and will never have any eye surgery (38; 30.4%) as shown in Table 4. Majority of the patients believe that eye surgery is riskier than non ocular surgery (79; 63.2%) but 46(36.8%) differ, see Table 4.

Table 4: Rating of eye surgery/comparing eye and non ocular surgeries

Variables	Frequency	Percentage (%)
Degree of fear for eye surgery		
Have no fear	0	0
Have little fear	33	26.4
Have some fear	33	26.4
Have serious fear	21	16.8
Will never have eye surgery	38	30.4
Total	**125**	**100.0**
Do you think eye surgery is riskier than other surgeries		
Yes		
No	79	63.2
Total	46	36.8
	125	**100.0**

A cross tabulation of sociodemographic characteristics and types of eye surgery known showed that age, marital status and level of education of the participants were predictors for the knowledge of cataract surgery , p=0.033, 0.043 and 0.037 respectively (Table 5). Being illiterate was significant with respect to knowledge of eye surgeries, p=0.000.

Table: 5 Sociodemographics versus types of eye surgery known

Variables	Types of eye surgery				
	Cataract	**Glaucoma**	**Pterygium**	**Others**	**None**
Sex					
Male	46(45.5)	22(40.7)	3(50.0)	1(100.0)	1(16.7)
Female	55(54.5)	32(59.3)	3(50.0)	0(0.0)	5(83.3)
P-value	0.361	0.716	1.000	0.432	0.234
Age (Years)					
Less than 25	3(3.0)	4(7.4)	0(0.0)	0(0.0)	1(16.7)
25-34	14(13.9)	10(18.5)	1(16.7)	0(0.0)	0(0.0)
35-44	13(12.9)	8(14.8)	2(33.3)	0(0.0)	0(0.0)
45-54	16(15.8)	9(16.7)	1(16.7)	0(0.0)	1(16.7)
55-64	30(29.7)	13(24.1)	1(16.7)	1(100.0)	1(16.7)
65 and above	25(24.8)	10(18.5)	1(16.7)	0(0.0)	3(50.0)
P-values	0.033*	0.860	0.865	1.000	0.291
Marital Status					
Single	13(12.9)	11(20.4)	1(16.7)	0(0.0)	1(16.7)
Married	75(74.3)	35(64.8)	5(83.3)	1(100.0)	3(50.0)
Divorced	1(1.0)	1(1.9)	0(0.0)	0(0.0)	0(0.0)

Widowed	12(11.9)	7(13.0)	0(0.0)	0(0.0)	2(33.3)
P-values	0.043*	0.488	1.000	1.000	0.240
Educational Status					
No formal education	2(2.0)	0(0.0)	0(0.0)	0(0.0)	3(50.0)
Primary school	28(27.7)	13(24.1)	1(16.7)	0(0.0)	1(16.7)
Secondary school	19(18.8)	10(18.5)	2(33.3)	0(0.0)	2(33.3)
Tertiary	52(51.5)	31(57.4)	3(50.0)	1(100.0)	0(0.0)
P-values	0.037*	0.132	0.801	1.000	0.000*
Occupation					
Student	8(7.9)	2(3.7)	0(0.0)	0(0.0)	0(0.0)
Civil servant	40(39.6)	28(51.9)	4(66.7)	1(100.0)	1(16.7)
Artisan	13(12.9)	4(7.4)	0(0.0)	0(0.0)	3(50.0)
Trading	23(22.8)	10(18.5)	2(33.3)	0(0.0)	1(16.7)
Farming	10(9.9)	5(9.3)	0(0.0)	0(0.0)	0(0.0)
Unemployed	5(5.0)	5(9.3)	0(0.0)	0(0.0)	0(0.0)
Doctor	2(2.0)	0(0.0)	0(0.0)	0(0.0)	1(16.7)
P-values	0.794	0.068	0.893	1.000	0.064

*significant P<0.05

Data from Table 6 shows that there are significant correlations for older age (from 55years and above, p=0.010), being married and hospital as source of information (0.003), being illiterate and relying on friends for information (0.002) and radio serving as an important source of information for traders(p=0.014).

Table: 6 Sociodemographics versus sources of information

Variables	**Sources of information**						
	Radio	**TV**	**Family members**	**Friend**	**Church**	**Hospital**	**Others**
Sex							
Male	12(48.0)	5(45.5)	8(50.0)	7(31.8)	1(50.0)	28(44.4)	2(40.0)
Female	13(52.0)	6(54.5)	8(50.0)	15(68.2)	1(50.0)	35(55.6)	3(60.0)
P-value	0.655	1.000	0.597	0.343	1.000	0.857	1.000
Age (Years)							
Less than 25	3(12.0)	2(18.2)	2(12.5)	1(4.5)	0(0.0)	0(0.0)	1(20.0)
25-34	7(28.0)	3(27.3)	4(25.0)	2(9.1)	0(0.0)	7(11.1)	1(20.0)
35-44	4(16.0)	3(27.3)	2(12.5)	2(9.1)	0(0.0)	9(14.3)	1(20.0)
45-54	3(12.0)	1(9.1)	2(12.5)	2(9.1)	0(0.0)	11(17.5)	1(20.0)
55-64	4(16.0)	1(9.1)	2(12.5)	6(27.3)	1(50.0)	23(36.5)	1(20.0)
65 and above	4(16.0)	1(9.1)	3(18.8)	9(40.9)	1(50.0)	13(20.6)	1(20.0)
P-values	0.204	0.100	0.633	0.369	1.000	0.010*	0.376
Marital Status							
Single	8(32.0)	2(18.2)	4(25.0)	4(18.2)	0(0.0)	4(6.3)	2(20.0)
Married	15(60.0)	8(72.7)	11(68.8)	13(59.1)	2(100.0)	51(81.0)	3(60.0)
Divorced	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(1.6)	0(0.0)
Widowed	2(8.0)	1(9.1)	1(6.2)	5(22.7)	0(0.0)	7(11.1)	0(0.0)
P-values	0.224	1.000	0.725	0.286	1.000	0.003*	0.331
Educational Status							
No formal education	0(0.0)	0(0.0)	0(0.0)	4(18.2)	0(0.0)	1(1.6)	0(0.0)
Primary school	5(20.0)	2(18.2)	3(18.8)	8(36.4)	1(50.0)	18(28.6)	0(0.0)
Secondary school	7(28.0)	2(18.2)	4(25.0)	4(18.2)	0(0.0)	11(17.5)	0(0.0)
Tertiary	13(52.0)	7(63.6)	9(56.2)	6(27.3)	1(50.0)	33(52.4)	5(100.0)
P-values	0.646	0.858	0.863	0.002*	1.000	0.323	0.261
Occupation							
Student	0(0.0)	0(0.0)	1(6.2)	1(4.5)	0(0.0)	5(7.9)	2(40.0)
Civil servant	10(40.0)	6(54.5)	5(31.2)	8(36.4)	1(50.0)	28(44.4)	3(60.0)
Artisan	0(0.0)	1(9.1)	3(18.8)	4(18.2)	0(0.0)	9(14.3)	0(0.0)
Trading	10(40.0)	2(18.2)	6(37.5)	3(13.6)	1(50.0)	12(19.0)	0(0.0)
Farming	2(8.0)	0(0.0)	1(6.2)	5(22.7)	0(0.0)	4(6.3)	0(0.0)
Unemployed	3(12.0)	1(9.1)	0(0.0)	1(4.5)	0(0.0)	3(4.8)	0(0.0)
Doctor	0(0.0)	1(9.1)	0(0.0)	0(0.0)	0(0.0)	2(3.2)	0(0.0)
P-values	0.014*	0.498	0.658	0.406	1.000	0.859	0.198

*significant P<0.05

A cross tabulation of sociodemographics and rating of fear for eye surgery showed that the demographic characteristics associated with significant aversion to ocular surgeries are being a female (p=0.012) and having tertiary education (p=0.011)-Table 7.

Table: 7 Sociodemographics versus rate of fear for eye surgery

Variables	Rate your fear for eye surgeries				Fisher's exact (P-value)
	Little	Some	Serious	Will Never have surgery	
Sex					10.808(0.012)*
Male	16(48.5)	12(36.4)	15(71.4)	11(28.9)	
Female	17(51.5)	21(63.6)	6(28.6)	27(71.1)	
Age (Years)					19.065(0.211)
Less than 25	2(6.1)	1(3.0)	3(14.3)	1(2.6)	
25-34	2(6.1)	5(15.2)	3(14.3)	10(26.3)	
35-44	2(6.1)	6(18.2)	3(14.3)	7(18.4)	
45-54	4(12.1)	5(15.2)	3(14.3)	7(18.4)	
55-64	13(39.4)	10(30.3)	6(28.6)	4(10.5)	
65 and above	10(30.3)	6(18.2)	3(14.3)	9(23.7)	
Marital Status					9.734(0.325)
Single	4(12.1)	4(12.1)	6(28.6)	8(21.1)	
Married	25(75.8)	27(81.8)	14(66.7)	22(57.9)	
Divorced	0(0.0)	0(0.0)	0(0.0)	1(2.6)	
Widowed	4(12.1)	2(6.1)	1(4.8)	7(18.4)	
Educational Status					19.346(0.011)*
No formal education	2(6.1)	0(0.0)	0(0.0)	3(7.9)	
Primary school	14(42.4)	11(33.3)	2(9.5)	5(13.2)	
Secondary school	8(24.2)	6(18.2)	7(33.3)	6(15.8)	
Tertiary	9(27.3)	16(48.5)	12(57.1)	24(63.2)	
Occupation					15.816(0.562)
Student	2(6.1)	4(12.1)	1(4.8)	2(5.3)	
Civil servant	12(36.4)	15(45.5)	8(38.1)	16(42.1)	
Artisan	6(18.2)	1(3.0)	5(23.8)	5(13.2)	
Trading	6(18.2)	8(24.2)	4(19.0)	8(21.1)	
Farming	3(9.1)	1(3.0)	3(14.3)	5(13.2)	
Unemployed	2(6.1)	4(12.1)	0(0.0)	1(2.6)	
Doctor	2(6.1)	0(0.0)	0(0.0)	1(2.6)	

*significant P<0.05

IV. Discussion

It is often said that perception is reality. The problem is that sometimes perception collides with reality. In the course of routine preoperative counseling, patients wants to know how they will still see after surgery since we are going to remove the eyeball from the socket, operate on it then return it to the orbital cavity.[22] Such extreme view, even for the bravest of patients, represents a significant risk. Meanwhile, empirical evidence continues to mount that eye surgeries, especially cataract surgery, is about the most cost effective surgical intervention in modern-day patient care.[23-27] This study aims to interrogate the socio-demographic determinants of this uniquely human attribute. To the best of our knowledge, no study bearing the specifics of perception of ocular surgeries in an outpatient setting has been conducted in our immediate vicinity.

A total of 125 patients were interviewed, comprising of 71 females and 54 males (Table 1), a gender skew that was not consistent with other literatures reviewed and may reflect the cultural dynamics of the population under study.[28,29] Their ages ranged from eighteen to eighty-two years with a mean age of fifty-one years. Studies on patients attending eye clinic in Southern part of Nigeria have trended in the age range seen in this study but lower mean age have been reported in Northern Nigeria.[30,31] This might not be unrelated to differences in the level of poverty and invariably life expectancy between the two parts of the country. Christianity was the predominant religion practiced by our respondents (>99%), being the dominant religion among the Igbos inhabiting the South-Eastern part of Nigeria. Most of our subjects were engaged in a form of employment (92%). Only 5 of our subjects (4%) did not have any form of formal education. Previously reported illiteracy data of 7% in a study done in Akwa-Ibom state Southern Nigeria, corroborates our finding.[32]

That certain ocular conditions could warrant surgery was a universal knowledge among our subjects (100%)- Table 2. Cataract surgery was the most widely known (80.8%) and this was significant for age, marital status and level of education of the participants (p=0.033, 0.043 and 0.037 respectively)-Table 5. Literacy level was an important association for what is known because a significant correlation existed between being uneducated and not knowing about any type of eye surgery (P=0.000). The hospital environment was the primary information source for the majority of our subjects (50.4%). Faith-based organizations notably churches, omnipresent in our study area, played surprisingly little role as a medium of awareness in this study (1.6%).

Considering that married subjects made up 70.4% of our sample population, 81% of them cited the hospital as their source of information regarding eye surgeries, which is significant when compared with the marital status of other demographics (p=0.003)-Table 6. The uneducated will literally be all over the map to

acquire the little that they know, relying significantly on friends for information (p=0.002). There was a significant correlation between being older (from 55 years and above) and sourcing information from the hospital (p=0.010). Traders appeared to rely significantly on the radio for information concerning eye care services (p=0.014).

Majority of our subjects agreed that surgery can improve vision (88%) - Table 3. However, all our respondents reported varying degrees of fear of eye surgery. When compared to other non ocular surgeries, 62% of our subjects believed that the eye carries more risk (Table 4). Similar disconnect between knowledge and attitude has been reported in literatures we reviewed.[33-36] Indeed, 30.4% of our respondents will rather accept blindness as a fait accompli instead of undergoing eye surgery (Table 4). The reasons cited for taking this ominous stance included; it is dangerous to operate on the eye considering its delicate nature (76.4%); superstition and religious beliefs (17.5%) and lastly; cost of the surgery (6.1%). A conflation of the influence of sex, age, level of educational attainment and occupation on the perceived fear of eye surgeries showed that females and individuals with tertiary education had significantly more fear of ophthalmic surgeries than the other subgroups (p=0.012 and p=0.011 respectively, Table 7). That the female gender is generally more risk-averse, including willingness to go under the knife when compared to the male gender, seems to be gaining traction as evidenced by findings in the literatures reviewed.[37-39] We also encountered a study linking higher educational qualification to increased fear of surgery.[37] The reason(s) for these are not immediately clear and will deserve further research.

These findings are consistent with a work done in Brazil which employed similar study protocol but involved a cohort of 170 adult subjects undergoing counseling for cataract surgery.[40] They observed that 28.8% were afraid to go for surgery even though it was free. The reasons cited by the subjects included; going blind after the surgery (55.1%); 40.8% believed the surgery would be painful; 16.3% feared they will die during the surgery while 8.2% were adherents of religions that do not accept surgery. This is hardly a surprise considering the fact that Brazil has the second largest population of people of African descent after Nigeria. Fear has also been seen to interfere with the ease of surgical uptake in studies done elsewhere.[9,10,41-43] Contrast to our findings, a two year (2005-2006) retrospective study done by Okoloagu et al reported that almost half of the patients (96;49%) indicated cost to be their major reason for not accepting cataract surgery but a significant number of them (84;45.1%) refused surgery for fear of blindness as a complication.[44] Okoye et al found that even in resource-challenged communities, cost is not all that there is to poor uptake of cataract surgery.[45] They retrospectively reviewed all cataract surgeries done in a tertiary hospital over a 2-year period (2008-2009) before the hospital implemented a major downward review of direct cost of the surgery and two years (2010-2011) after the new price regime. They found that despite a more than 150% reduction in price, the annual cataract surgery uptake increased from 82 to 106, representing a modest increase of about 29% in their cohort..

However, Gyasi et al found that poverty was a major barrier to uptake of cataract surgery in a rural upper East region of Ghana as 91% of their respondents cited this reason.[46] Other negating factors reported were fear (12%), lack of escort (15%), socio-cultural beliefs (8%) and ability to cope with their disability (9%). Cost was also cited as the commonest reason for non-attendance of a planned cataract surgery programme in a rural hospital in Swaziland.[47] Both countries do not have universal health insurance coverage and majority of their citizens live on less than $1 a day hence the restrictive effect of cost. Indirect cost to the patient attributable to inability to work during convalescence as well as to the escort bringing the patient to the hospital and possibly giving care at home were also been cited.

V. Limitations

Despite reassuring the patient that participation in the study and responses will not alter their management going forward, some might still want to 'please' the doctor for fear of retribution. Some patients were undecided on what they felt and escorts were relied on for clarity.

VI. Conclusion

Fear of an unintended outcome emerged as the prism through which most of our respondents viewed ocular-related surgical interventions. This was inevitably infused with deep-rooted superstitions and religious bias. The problem of cost in a low income country such as ours was rather muted in this study. This can possibly be explained by the fact that surgery was not imminent for most of our respondents and they probably detached it from other factors under consideration. Cost, both direct and indirect is expected to become more important if and when the time for surgery eventually comes. There is no doubt that there still remains a lot of work to be done in rooting out widespread misinformation about ocular surgery in a society steeped in superstition and fatalism such as ours.

VII. Recommendations

Measures to ensure better surgical outcome will likely assuage a lot of eye surgery-related fears. Bringing eye surgical services closer to the people can reduce fear of the unknown that comes with a journey to an unfamiliar environment. Strong advocacy is needed to prod the government into substantially increasing the availability of community-based Health Insurance Scheme to reduce cost of surgeries. The role of faith-based organizations especially the church on fear-mongering or mitigation as it relates to medical practice in general and eye surgeries in particular warrants further litigation. Why the female gender disproportionately fears surgery is a research question. A multi-center study involving larger sample size will give more guidance on how all factors interact to dampen our patients' desire for surgical interventions they so much require.

CONFLICT OF INTEREST

The authors affirm that they have no conflict of interest regarding this study.

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GRANT

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QUESTIONNAIRE

Perception of Eye Surgeries in a Tertiary Hospital South-Eastern Nigeria

Section A: Bio data

1. Sex: (a) Male (b) Female
2. Age: ……..
3. Marital status: (a) Single (b) Married (c) Divorced (d) Separated (e) Widowed
4. Educational status: (a) none (b) Primary (c) Secondary (d) Tertiary
5. Occupation: (a) Student (b) Civil Servant (c) artisan (d) trading (e) farming (f) unemployed (g) others
6. Religion: (a) Christian (b) Muslim (c) Others

SECTION B:

1. Are you aware that some eye diseases can be treated by surgery (a) Yes (b) No
2. What is your source of information: (a) Radio (b) Television (d) Family Members (e) Friend (f) Church (g) Others
3. What type of eye surgery do you know: (a) cataract (b) glaucoma (c) Pterygium (d) Others
4. Do you think eye surgery can improve vision: (a) yes (b) No (c) I don't know (d) It will make vision worse
5. Are you afraid of eye surgery: (a) yes (b) No
6. If yes why (a) is it because you think it is dangerous to operate on the eye (b) is it because of superstitious belief/religious belief (c) cost
7. Degree of fear for eye surgeries (a) I have no fear (b) I have little fear (c) I have some fear (d) I have serious fear (e) I can never have eye surgery.
8. Do you think that eye surgery is riskier than any other surgery in the body? (a) yes (b) No.

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