

## Original Article

# Barriers to Utilization of Cataract Surgical Services in Ekiti State, South Western Nigeria

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ABSTRACT

**Objective:** To ascertain the barriers to utilization of cataract surgery in Ekiti State, south western Nigeria. **Methods:** A semistructured questionnaire was used to extract relevant data from cataract patients seen during six episodes of free eye screening conducted quarterly across the three senatorial districts of the state for a 15-month period. The questionnaire contains relevant biodata and reasons why the patients did not utilize facilities for routine cataract surgery prior to the screening exercise. The data obtained were coded and analyzed using the Statistical Package for Social Sciences (SPSS) version 15. **Results:** A total of 132 patients were analyzed for the study, The study group comprised 64 males (48.5%) and 68 females (51.5%). Age range 16-95 years with a mean of 64.8 years  $\pm$  SD 16.5. Forty of them (30.3%) were bilaterally blind, whereas 92 (69.7%) were unilaterally blind from cataract. The most common reason for not utilizing routine cataract surgical services was financial constraint as claimed by 65 (49.2%) of them; other reasons include ignorance 38 (28.8%), medical illness 24 (18.2%), and fear 5 (3.8%). **Conclusion:** Financial constraint is the most common barrier to utilization of routine cataract surgery in Ekiti, State. Ignorance is also a significant factor in our environment.

**KEYWORDS:** *Blindness, cataract surgery, eye care barrier*

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## INTRODUCTION

Cataract is the leading cause of blindness worldwide accounting for approximately 47.8% of all blindness;<sup>[1]</sup> In Nigeria it accounts for 43.0% of blindness.<sup>[2]</sup>

Ekiti State is one of the 36 states in Nigeria. It is located in the south west geopolitical zone. It was created in 1996 from the old Ondo State and has a population of 2,384,212.<sup>[3]</sup> The prevalence of blindness in south western Nigeria where Ekiti State is located is 2.8, with cataract constituting about 45.3% of causes.<sup>[2]</sup>

The state has a well-equipped eye care center within its teaching hospital, with four resident ophthalmologists. The average cataract surgical rate in the state in the past 3 years (2012-2014) was 84, which is far below the estimate of 300 for Africa region.<sup>[4]</sup>

Studies<sup>[5,6]</sup> have shown that the presence of eye care services do not translate into increase in uptake; hence, there must be some barriers to its utilization.<sup>[5,6]</sup>

Cataract surgery is one of the most beneficial of all ophthalmic procedures worldwide with the benefit outweighing the cost;<sup>[7]</sup> yet, many afflicted people do not avail themselves of it due to a number of reasons that borders on ignorance, cost, transportation, poor outcome, and other socioeconomic factors. There is still no data on barrier toward the routine utilization of cataract surgery in Ekiti State.

The aim of this study is to determine the barriers to effective utilization of routine cataract surgical services in Ekiti State, south western Nigeria, and make recommendations that can minimize such barriers.

## METHODS

This study was conducted on cataract patients diagnosed during the quarterly episodes of free eye screening in

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Ekiti State. Routine free eye screening is an integral part of the free health mission of the state government, which offers medical intervention to citizens of the state on a quarterly basis.

The health mission comprises health care professionals in the areas of medicine, surgery, and eye care. Each of the quarterly episode is preceded by adequate media publicity, the local government authority of the selected town also motivate, and sensitize their people to ensure wide patronage.

This study was conducted on cataract patients seen during six of such quarterly episodes that spanned between September 2012 and March 2014 conducted in two major towns in each of the three senatorial districts in the state, thus making it a fair representation of the view of the patients in the state.

This study was conducted during the preoperative evaluation stage of the patients by administering a pretested semistructured questionnaire on them assisted by two optometrists.

The questionnaire administered includes information on biodata, demographic characteristics, duration of blindness, and reasons for not utilizing routine eye care services prior to the outreach screening.

The information obtained were coded and input for analysis using the Statistical Package for Social Sciences (SPSS) version 15.

### Ethical consideration

Approval for the study was given by the ethics and research committee of Ekiti State University Teaching Hospital. Informed verbal consent was also obtained from all the patients after due explanation to them.

### RESULTS

A total of 132 patients were analyzed. They comprised 64 males (48.5%) and 68 females (51.5%). Age range 16-95 years with a mean of 64.8 years  $\pm$  SD 16.5 [Table 1].

Fifty nine (44.7%) patients were illiterates without formal education, whereas the remaining 73 (65.3%) attained various levels of educational status ranging from primary to tertiary level as depicted in [Table 2].

Many of the patients (36.4%) were traders, whereas others were farmers, artisans, drivers, and retirees as presented in [Table 3]. Of these 132 patients, 40 (30.3%) were bilaterally blind, whereas 92 (69.7%) were unilaterally blind from cataract. Their visual acuities ranged from counting finger to light perception while the duration of blindness ranged from 3 months to 8 years.

**Table 1: Age and sex distribution of patients**

Age group (in yrs)	Males	Females	No	%
< 20yrs	1	1	2	1.5
21-40	11	5	16	12.1
41-60	12	11	23	17.1
61-80	35	42	77	58.3
>80	5	9	14	10.6
Total	64	68	132	100

**Table 2: Educational status of patients**

Education Status	No	%
Nil	59	44.7
Primary	43	32.6
Secondary	15	11.4
Tertiary	15	11.4
Total	132	100

**Table 3: Distribution of patients by occupation**

Occupation	No of patient	%
Artisan	14	10.6
Civil Servant	13	9.8
Clergy	5	3.8
Driving	6	4.5
Farming	24	18.2
Retiree	17	12.9
Trading	48	36.4
Student	5	100.0
TOTAL	132	100%

**Table 4: Barrier to utilization of cataract surgery**

Stated Barrier	No of patients	%
Financial Constraint	65	49.2
Ignorance	38	28.2
Medical Illness	24	18.2
Fear of Surgery	5	3.8
TOTAL	132	100%

The most common reason given for not utilizing routine cataract surgical services was financial constraint as claimed by 65 (49.2%) of them, other reasons given include ignorance 38(28.8%), medical illnesses such as arthritis, hypertension, and diabetes. Only five (3.8%) gave fear as their reason, as presented in [Table 4].

### DISCUSSION

Cataract surgery is one of the most cost-effective ophthalmic procedures performed all over the world;<sup>[7]</sup> yet, some people do not avail themselves of it thus remaining needlessly blind.

In this study, financial constraint was the most common barrier to utilization of cataract surgery. It accounted

for 49.2% of the total response, other reasons given includes ignorance (28.8%), medical illness such as arthritis, diabetes, and hypertension (18.2%), whereas fear accounted for only 3.8%.

Cost as the most common barrier to cataract surgery has also been found from other studies,<sup>[8-15]</sup> even though the proportion of patients claiming cost as a barrier varies widely in the different studies depending on the environment.

This study reported 49.2% while most of the other studies<sup>[13-19]</sup> reported a higher proportion. For instance Marmamula *et al.*<sup>[13]</sup> reported 76.1% while Kessy and Lewallen<sup>[14]</sup> reported 79%.

An outstanding proportion of 91% was reported by Gyasi *et al.*<sup>[15]</sup> this higher proportion might be a reflection of the socioeconomic status of their studied population. Nevertheless, some other studies<sup>[20-23]</sup> did not report cost as the most common barrier in their study.

Bekibele *et al.*<sup>[20]</sup> for instance reported untreated medical problem as the most common barrier while Razafinmpanana *et al.*<sup>[21]</sup> reported distance as the major barrier and Gupta *et al.*<sup>[22]</sup> reported fear. Three of these studies<sup>[21-23]</sup> are from India where there is always a regular provision of free cataract surgical services to patients.

Furthermore, the greater proportion of operable cataract in this study was unioocular 69.7%, whereas bilateral accounted for 30.3%; usually people with unioocular cataract are not blind so they may deliberately not want to utilize routine cataract surgical services for a cost.

The mean age of 64.8 in this study is consistent with the fact that cataract is an age-related problem and as such is usually seen in elderly people.

Ignorance was reported as the second common barrier in this study (28.8%); this might be due to the sociocultural belief in this environment that blindness is due to old age and may not require medical intervention.

In this study, 18.2% reported medical illnesses such as arthritis, diabetes, and hypertension as the barrier; this is comparable to the study by Bekibele *et al.*<sup>[20]</sup> who reported 29.0%. This is because cataract in most instances is age-related and may coexist with these other age-related illnesses, thus hampering them from seeking eye care. It is therefore advisable to partner with geriatric doctors in order to reach out to such afflicted patients.

Only 3.8% reported fear of surgery in this study. This may be because of high success rate of modern hi-tech cataract surgery with intraocular lens implantation, where compared with the olden day form of intracapsular

cataract surgery without intraocular lens implantation. This old method was often fraught with a lot of complications and even when successful, usually require heavy aphakic spectacles for optimal vision, such glasses are often cosmetically unacceptable to most patients.

Nevertheless, some other studies reported fear in a greater proportion of their patients, for instance Gyasi<sup>[15]</sup> reported 21% whereas Bekibele *et al.*<sup>[20]</sup> reported 12%.

Proper counseling and success report from satisfied patients will go a long way in allaying such fears and motivate more needy patients to utilize existing services.

## CONCLUSION AND RECOMMENDATION

Financial constraint is a significant barrier to routine utilization of cataract surgery in Ekiti State, thus making some cataract-blinded patients to remain needlessly blind.

There is therefore the need to subsidize cataract surgery for underprivileged patients by Government, Non-Governmental organizations, and Philanthropists.

This will go a long way to reduce the burden of cataract blindness and make the lofty goal of vision 2020 achievable.

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### Conflicts of interest

There are no conflicts of interest

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