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**KNOWLEDGE AND ATTITUDE TOWARDS GLAUCOMA SCREENING AND UPTAKE IN
ADULTS OF THE RURAL COMMUNITY OF SEKONA EDE SOUTH LOCAL
GOVERNMENT AREA, OSUN STATE**

KNOWLEDGE AND ATTITUDE TOWARDS GLAUCOMA SCREENING AND UPTAKE IN ADULTS OF THE RURAL COMMUNITY OF SEKONA EDE SOUTH LOCAL GOVERNMENT AREA, OSUN STATE

Ogunmola O¹, Akinmokunwa A¹, Ajibola T¹, Adeoti CO²

1. Public health Department, College of Health sciences, Osun State University, Osogbo, Osun state, Nigeria.
2. Department of Ophthalmology, Osun State University, Osogbo, Osun state, Nigeria.

Correspondence to: Ogunmola O. Public Health Department, College of Health Sciences, Osun State University, Osogbo, Nigeria. Telephone: +234-8134462444; Email: odunayoroseline100@gmail.com

ABSTRACT

Introduction: Glaucoma is a group of ocular diseases with multifactorial optic neuropathy. It is second to cataract as the most common cause of blindness. Unlike cataract, the blindness it causes is irreversible. The commonest type of glaucoma is primary open angle type which is a silent blinding disease. This is the reason for community screening in order to identify it early before blindness sets in. This study assessed the level of knowledge and attitude towards glaucoma screening and uptake, to determine if any, the association between socio-demographic factors, knowledge, attitude to glaucoma screening and uptake among the people of Sekona community, Ede South LGA, Osun State, Nigeria.

Methods: A pre-determined sample size of two hundred and fifty respondents was chosen using multi-stage sampling technique and a descriptive cross-sectional study design. An interviewer-administered questionnaire was used to collect data. The data obtained were processed and analyzed using IBM SPSS Version 23. Uni-variate analysis was used and data were presented using frequency tables and charts. Bi-variate analysis (using Chi-square statistics) was done to determine the relationships between categorical variables, with CI of 95% and level of statistical significance set at $p \leq 0.05$.

Results: Majority (84%) of the respondents were aware of glaucoma and the source of information was mainly television (36.70%). Also, most (80%) of the respondents had positive attitude to screening and majority, 158 (63.20%) had no uptake of screening. There was a significant association between level of education and knowledge of glaucoma ($p=0.05$). However, there was no significant association between other socio-economic factors and knowledge.

Conclusion: Majority of the respondents had good knowledge of glaucoma and glaucoma screening. Most of the respondents had no uptake of glaucoma screening. Most of the respondents had good attitude towards glaucoma screening.

Keywords: Glaucoma, Knowledge, Attitude, Uptake, Glaucoma screening.

INTRODUCTION

Glaucoma is a group of ocular disorders with multi-factorial optic neuropathy. It is not a single disease entity. All forms of glaucoma are potentially progressive and can lead to blindness.¹ It is one of the commonest causes of ocular morbidity and is second to cataract as the commonest cause of blindness worldwide.

The majority of the world's population (and those with glaucoma) reside in developing

countries.² The majority of those affected in developing countries are unaware that they have the disease until visual impairment or blindness set in.³

There are an estimated 60 million people with glaucomatous optic neuropathy and an estimated 8.4 million people are blind as the result of glaucoma.⁴ Africa is the region with the highest incidence and prevalence of glaucoma, most of which is open-angle glaucoma (OAG).⁵

In Nigeria, over one million people are estimated to be blind (0.78 % of the population), with 16.3 % attributed to glaucoma.⁶ Glaucoma is a worldwide leading cause of irreversible visual impairment and its diagnosis is frequently delayed.⁷ Although the pathogenesis of glaucoma is not fully understood, its incidence increases with age and affected individuals often have numerous comorbidities and use various medications.⁷ Glaucoma is a group of diseases with optic neuropathy associated with characteristic structural changes at the optic nerve head that can lead to visual field loss and, ultimately, blindness.⁸ The commonest type of glaucoma is the Chronic Open Angle Glaucoma (COAG) which is a silent disease because the loss of vision usually occurs slowly over a long period of time and patients are usually diagnosed late in the disease because they do not have symptoms in the early stages. Chronic Open Angle Glaucoma is an optic neuropathy with a slow evolution, usually bilateral and often asymmetrical. It is usually found in adults with open angles of the anterior chamber and absence of other eye diseases that lead to changes in the optic nerve.⁹

The prevalence of COAG has been put at 2.1% and it increases with age, from 0.9% in people of 43–54 years of age to 4.7% in people of 75 years of age or older. It is reported to be four times higher in Africans than Caucasians.⁹ COAG has been variously called “the silent blinding disease” because of its silent nature and how it occurs slowly over a long period of time.

As a result of this silent nature, many patients are detected only when they present to the eye clinic with different problems and the management of the disease is therefore better in the early stages. Hence community screening is a good way of detecting the disease before it causes blindness.

Screening of the general population for primary open-angle glaucoma using tonometry, disc examination, or visual field examination is not usually recommended because it is not cost-effective. However, various programs like the yearly World Glaucoma Week have been done to include both screening and public awareness talks for the populace to increase the knowledge and attitude of the people to glaucoma. Glaucoma screening is especially essential for all people with risk factors.¹⁰

The risk factors of glaucoma include the following:

1. **Genetics and family history:** First degree relatives of those with glaucoma have a high chance of developing glaucoma. Once a patient has a positive family history of glaucoma, he/she has a four-time increase in risk of developing glaucoma.¹¹ The discovery of genes in some of the glaucomas such as optineurin, myocillin and WDR-36 in open angle glaucoma further points to the relevance of family history in glaucoma.^{12,13}
2. **Race:** White, Black and Asian races are at risk of having glaucoma.¹⁴ But the Black race is the most prone to having the disease.
3. **Myopia:** High myopia and increased axial length in certain age groups have both been identified as risk factors for glaucoma development and progression.
4. **Diabetes:** It appears that diabetes may increase the risk of POAG, especially as hyperglycaemia results in heightened sensitivity to intra-ocular pressure (IOP) and risk of neuronal injury.

5. Systemic hypertension, vasospasm, and acute hypotension have been proposed as potential risk factors for glaucoma in clinic-based studies.¹⁰ Several studies have reported associations between low diastolic pressure, lower ocular perfusion pressure (OPP) and higher prevalence and/or incidence of glaucoma.¹⁵⁻¹⁷ However, a cross-sectional population study concluded that the association between hypertension and POAG was most likely due to the correlation between age and hypertension.¹⁸
6. **Age:** Glaucoma risk increases with age. As a consequence, glaucoma can be expected to be associated with other age- related diseases such as macular degeneration, vascular diseases and obstructive sleep apnea.
7. **Smoking:** It has been hypothesized that, in the presence of genetic risk factors, exposure to environmental stresses such as smoking, corticosteroid medication and diabetes, results in an earlier age of onset of glaucoma. The risk of glaucoma in smokers may be higher in men.
8. **Obstructive sleep apnea syndrome:** Compared to normal patients, patients with obstructive sleep apnea syndrome were found to have 1.67 times greater likelihood of developing glaucoma over a 5year follow-up period.¹⁹

Since the commonest type of glaucoma which is Chronic Open Angle Glaucoma is asymptomatic, it becomes necessary for everyone especially those with risk factors to have screening for glaucoma done at least once a year. The knowledge of the importance of screening is therefore essential. This will change the attitude of the populace to screening.

It was therefore the aim of this study to determine the knowledge and attitude of the people in the the rural community of Sekona Ede South Local Government area, Osun state towards glaucoma, its screening and uptake in

order to advise on future programs in this community.

METHODS

Study area

The research was carried out in Sekona, Ede South LGA, Osun State. Ede South is a Local Government area in Osun State, Nigeria. It has an area of 219km and a population of 98000 by the 2022 projection.²⁰

The area is mostly populated by members of the Yoruba ethnic group while Christianity, Islam and Traditional religions are widely practiced in the community. Farming is an important economic activity in the community with crops such as cassava, pepper, maize grown in the community. Other important economic activities undertaken by people of the community include trading, hairdressing, tailoring, auxiliary nursing, bricklaying, teaching, rewiring, mechanic, baking, etc. Its geographical coordinates are 7° 37' 0" North, 4° 27' 0" East and its original name (with diacritics) is Sekona.

Study design

This was a descriptive, cross-sectional study. The study was carried out from January to October, 2022

Study population

All respondents aged 40 years and above resident in Sekona community, Ede South LGA.

Inclusion criteria

All respondents aged 40 years and above who were available at the time of the study and who were resident in Sekona for the past one year.

Exclusion criteria

All respondents aged 40 years and above who are unwilling or unhealthy to participate and who were not available as at the time of the study.

Study sample

A predetermined sample of 250 respondents was calculated and these formed the study

sample. This sample size was determined using the modified Leslie Fisher's statistical formula for calculating sample size for single proportion in a population greater than 10,000 as follows:

$$n = Z^2 pq / d^2$$

Where

n= minimum sample size for a statistically significant survey

Z=normal deviate at the portion of 95% confidence interval=1.96

P=18% or 0.18.²¹

q=1-p

d=margin of error acceptable or measure of precision =0.05

Z= 1.96

P= 18% 18/100=0.18

q=1-0.18

d=0.05*0.05=0.0025

$$n = Z^2 pq / d^2$$

$$n = \frac{1.96^2 * 0.18 * 0.82}{0.0025}$$

$$= \frac{0.56702}{0.0025}$$

$$= 226.808$$

$$= 227$$

Adding 10% to make up for possible non-response, the final sample size was 250.

Sampling technique

Stage 1: Ten (10) streets were selected from the community using simple random sampling via balloting.

Stage 2: Starting from the first house on each street, we moved in a clockwise direction to find houses with eligible participants.

Stage 3: In each house, we selected people aged 40 and above.

Stage 4: All consenting eligible people (aged 40 and above) were recruited until the sample size was fulfilled.

Instruments and method for data collection

A semi-structured questionnaire (Appendix 1) was self-constructed by the researchers. It was an interviewer-administered questionnaire that comprised of four sections, A, B, C, and D as follows:

Section A: Socio-demographic status of the respondents

Section B: Glaucoma related knowledge on risk factors, symptoms and screening.

Section C: Attitude to glaucoma screening

Section D: Uptake of glaucoma screening

Data analysis

The survey data was coded and entered into the computer. It was processed with the SPSS version 23.0. At the univariate level, frequency tables were generated. At the bivariate level, Chi square test was used to explore association between two categorical variables that is; respondents' socio demographic status and knowledge of glaucoma. Confidence interval of 95% was used and p-value was set at $p \leq 0.05$.

Measurement of Outcome Variables

The questions about knowledge, attitude and uptake were scored. For questions whose responses were either yes or no, a correct answer was scored as 1 and a wrong answer was scored as 0.

Maximum score for knowledge was computed to be 21. Respondents who scored between 11 and 21 were regarded as having good knowledge while those who scored 0-10 were regarded as having poor knowledge. Maximum score for attitude was computed to be 8; respondents who scored between 4 and 8 were regarded as having good attitude, while respondents who scored 0-3 were regarded as having poor attitude. Uptake of glaucoma screening was defined as when a respondent has gone or will go for screening. Maximum score for uptake was computed to be 2; respondents who scored 0 were regarded as having no uptake, while respondents who scored 1 were regarded as having poor uptake, and respondents who scored 2 were regarded as having good uptake.

Ethical considerations

Ethical clearance was obtained from the Health Research Committee (HREC), College of Health Sciences (CHS), Osun State University, Osogbo, Nigeria. (UNIOSUNHREC2022/PBH/031). Consent was obtained from the respondents after the purpose of the research had been explained to them and the respondents were assured of security of their data and confidentiality.

Tenets of Helsinki declaration were also adhered to.

family 174(69.6%), steroid use 151(60.4%), poor feeding 143(57.2%), and race 137(54.8%).

RESULTS

Two hundred and fifty questionnaires were administered in the study. The socio-demographic characteristics of respondents are as shown in table 1. The majority, 174(69.6%), of the respondents were between the ages of 40-50years. Most of the respondents were females 153(61.2%) while 97(38.8%) were males with a Male: Female ratio of 1:1.6. Majority 235(94.0%) of respondents belonged to the Yoruba ethnic group.

Christianity was the most widely practiced religion 166(66.4%) followed by Islam 82(32.8%). As at the time of the research, majority 222(88.8%) were married while 7(2.8%), 15(6.0%), 4(1.6%), and 2(0.8%) were single, widowed, divorced and separated respectively. Most of the respondents 117(46.8%) had primary education while 91(36.4%) and 37(14.8%) had secondary education, and tertiary education respectively. Majority 137(54.8%) were skilled laborer's while 46(18.4%), 39(15.6%) and 28(11.2%) were unskilled, professionals and unemployed respectively.

Knowledge of glaucoma

Table 2 shows the general knowledge of respondents on glaucoma. Higher proportion 177(70.8%) of the respondents had heard of glaucoma before while 73(29.2%) had not. One hundred and twenty-eight (51.2%) of the respondents said glaucoma can occur without symptoms while 122(48.8%) said it cannot occur without symptoms. Figure 1 shows majority (84%) of the respondents had good knowledge of glaucoma

Knowledge of risk factors

The respondents' knowledge of risk factors included short-sightedness 206(82.4%), old age 201(80.4%), Diabetes Mellitus 199(79.6%), high blood pressure 193(77.2%), smoking 186(74.4%), sickle cell anemia 183(73.2%), heart disease 182(72.8%),

Table 1: Socio-demographic status of respondents

	Variable	Frequency	Percentage
Age	40-50	174	69.6
	51-60	46	18.4
	61-70	22	8.8
	71 above	8	3.2
Gender	Male	97	38.8
	Female	153	61.2
Ethnicity	Yoruba	235	94.0
	Igbo	14	5.6
	Hausa	1	0.4
Religion	Christianity	166	66.4
	Islamic	82	32.8
	Traditional	2	0.8
Marital status	Married	222	88.8
	Single	7	2.8
	Widowed	15	6.0
	Divorced	4	1.6
Level of education	Separated	2	0.8
	Primary	117	46.8
	Secondary	91	36.4
	Tertiary	37	14.8
Occupation	None	5	2.0
	Unskilled labor	46	18.4
	Skilled labor	137	54.8
	Professional	39	15.6
	Unemployed	28	11.2

Knowledge of glaucoma screening

Table 3 shows one hundred and fifty-eight of the respondents (63.2%) had heard of glaucoma screening. Of those that had heard of glaucoma screening, the source of information was community health center

80(32.0%) with 63(25.2%) specifically from eye clinic (Table 3).

Table 2: General knowledge on glaucoma

Variables	Frequency	Percentage
Have you heard of glaucoma		
Yes	177	70.8
No	73	29.2
Glaucoma can occur without symptoms		
Yes	128	51.2
No	122	48.8
Glaucoma often causes high pressure in the eye		
Yes	208	83.2
No	42	16.8
Glaucoma can affect both male and female		
Yes	224	89.6
No	26	10.4
Glaucoma is common across all age groups		
Yes	201	80.4
No	49	19.6
Glaucoma is a curable disease		
Yes	189	75.6
No	61	24.4
Glaucoma is the same as cataract		
Yes	125	50.0
No	125	50.0

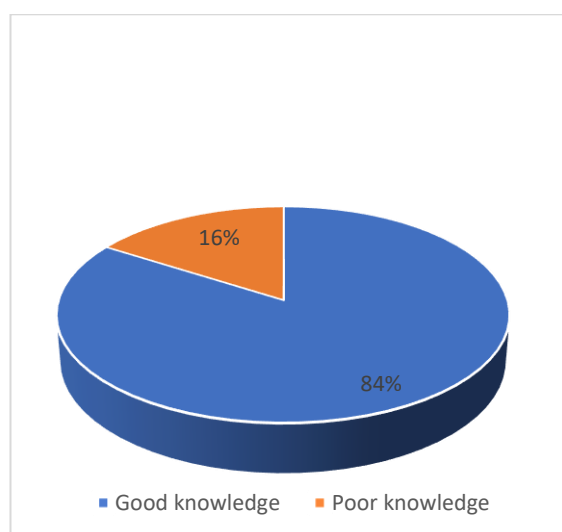


Figure 1: Categorized knowledge of respondents

More than half 130(52%) of the respondents felt screening should be done earlier than

40years while 120 (48%) knew the advisable age to be screened for glaucoma. Lastly, majority 193(77.2%) said glaucoma screening is best done at an eye clinic while 55(22%) said community health center and 2(0.8%) said market.

Table 3: Knowledge of glaucoma screening

Variable	Frequency	Percentage
Have you heard of glaucoma screening		
Yes	158	63.2
No	92	36.8
Where did you hear about it		
Community health center	80	32.0
Eye clinic	63	25.2
Social and print media	13	5.2
NA	92	36.8
At what age is screening advisable		
Less than 40	130	52.0
40 and above	120	48.0
Where can someone get Screened for glaucoma		
Eye clinic	193	77.2
Health center	55	22.0
Market	2	0.8

Uptake of glaucoma screening

One hundred and sixty-four (65.6%) of the respondents have had their eyes examined sometimes though not specifically for glaucoma by an eye doctor while 86(34.4%) never examined their eyes. Among the respondents that had their eyes examined, 50(30.5%) were due to eye pain, 50(30.5%) due to vision loss, 29(17.7%) due to itching eye, 13(7.9%) due to redness of the eye and 22(13.4%) due to blurred vision. Thirty-nine (23.8%) of the respondents that had examination got their eyes examined less than 6months ago, 63(38.4%) within 6 months to 1year and 62(37.8%) more than a year.

Majority 158(63.2%) had not had glaucoma screening while 92(36.8%) had had screening done for glaucoma. Of the respondents that had been screened, 19(20.7%) got their eye screened within less than 6 months,

58(63.0%) 6months-1year and 15(16.3%) >1year.

The need for screening was refused by 105(42%) while only 145(58%) agreed to be screened. One hundred and thirty five (54%) said the screening can prevent glaucoma blindness, 34(13.6%) said no while 81(32.4%) were not sure whether the screening can prevent glaucoma blindness. Majority (84%) of the respondents had good attitude towards uptake for glaucoma screening. (Figure 2)

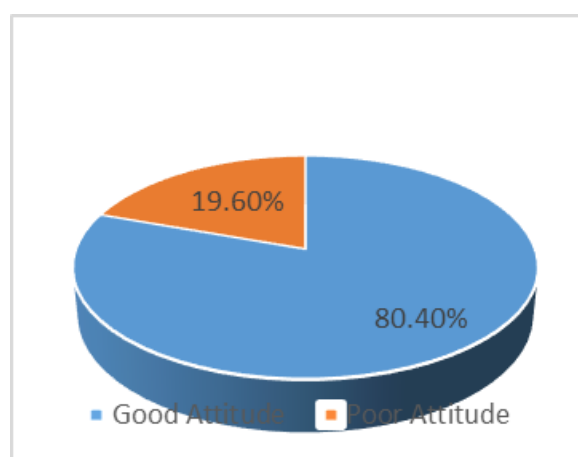


Figure 2: Categorized attitude towards glaucoma screening

Attitude towards glaucoma screening

Majority 137(54.8%) of the respondents strongly agreed that their religion allowed glaucoma screening while 89(35.6%), 1(0.4%), 9(3.6%) agreed, strongly disagreed, disagreed respectively and 14(5.6%) were not sure.

Culture strongly supported glaucoma screening in 92(36.8%) while 125(50%), 3(1.2%), 13(5.2%) and 17(6.8%) agreed, strongly disagreed, disagreed and not sure respectively. Thirty-one (12.4%) respondents strongly agreed that glaucoma screening is too expensive, 11(4.4%) strongly disagreed, 65(26%) disagreed, 84(33.6%) were not sure. Sixty-two (24.8%) respondents strongly agreed that glaucoma screening can reduce blindness, 127(50.8%) agreed, few 3(1.2%) respondents strongly disagreed, 18(7.2%) disagreed, 40(16%) were not sure. Twenty

seven respondents (10.8%) strongly agreed that glaucoma can be treated with herbs while 44(17.6%) agreed, 36(14.4%) strongly disagreed, 75(30%) disagreed and 68(27.2%) were not sure. Sixty four (25.6%) of the respondents strongly agreed that glaucoma screening should be carried out at least once a year, 118(47.2%) agreed, 2(0.8%) strongly disagreed, 15(6%) disagreed, and 29(11.6%) were not sure. Eighty-six (34.4%) respondents strongly agreed that glaucoma screening is necessary for people aged 40 and above while 118(47.2%) just agreed. However, a few 2(0.8%) strongly disagreed.

Association between socio-demographic status and knowledge of respondents

There was no significant association between age, gender, ethnicity, religion, marital status, occupation and knowledge of the respondents ($p > 0.05$). However, there was a significant association between the level of education and respondent's knowledge ($p=0.05$).

There was a significant association between these various socio-demographic variables and categorized uptake of glaucoma screening: Age ($p=0.041$), Religion ($p=0.001$), Level of education ($p=0.001$) and Occupation ($p=0.011$). There was no significant association between socio-demographic factors and attitude towards glaucoma screening.

There was no significant association between age ($p=0.28$), gender ($p=0.38$), occupation ($p=0.46$), marital status ($p=0.34$), religion ($p=0.43$), ethnicity ($p=0.78$) and knowledge of glaucoma. However, a significant association existed between level of education and knowledge of glaucoma ($p=0.05$).

Association between socio-demographic status and uptake of glaucoma screening

There was a statistically significant association between respondent's knowledge and uptake of glaucoma screening ($\chi^2=22.491$, $p<0.001$). Also, there were significant associations between age ($p=0.04$), religion ($p=0.001$), education ($p=0.001$), occupation ($p=0.01$) and uptake of glaucoma screening. However, there were no

significant association between gender ($p=0.30$), ethnicity ($p=0.69$), marital status ($p=0.70$) and uptake of glaucoma screening. Majority, 121 (57.6%) of the respondents had not had screening before. However, there was no statistically significant association between respondent's knowledge and attitude towards glaucoma screening and there was no significant association between attitude of respondents towards glaucoma screening and uptake of glaucoma screening.

DISCUSSION

Globally, the prevalence rate of glaucoma in the 40 to 80 year old was 3.54%.¹⁴ World-wide, an estimated 64.3 million and 80 million people were affected with glaucoma in year 2013 and 2020 respectively.²² This number is likely to increase to over 111 million by 2040 as a result of increasing population and increasing life expectancy even in developing countries.^{14,23} It has been revealed from population studies that about 1 in 10 people will eventually develop glaucoma.²³

Africa recorded the second highest number of cases of 8.3 million people.²⁴ This makes it a very common disease and global public health problem. The commonest type of glaucoma is a silent cause of irreversible blindness. Early detection, prompt and effective treatment can be offered to prevent progression of this disease.

It has been documented that knowledge of glaucoma can assist in reducing ocular morbidity.²⁴ This study was conducted among residents of Sekona community, Ede South Local Government, Osun State to assess their level of knowledge on glaucoma, glaucoma screening, attitude towards glaucoma screening and uptake and the association between knowledge and uptake of glaucoma screening. A similar study was carried in the rural community of Ebonyi state by Ogbonnaya CE, *et al.*²⁶

The majority, 153 (61.2%) of the respondents were females, possibly because men went out

to work on farms during the period of the study, leaving women at home which is similar to the findings of a study done by Adeoti CO, *et al.*²⁷ More than two-thirds, 174 (69.6%) of the respondents were aged 40-50 years. This is in contrast to the finding of a study done by Ogunleye O, *et al.*²⁸ Majority, 235 (94%) of the respondents were Yoruba, which may be due to the fact that the study was conducted in the South-West part of Nigeria which is mainly a Yoruba-speaking population.

Two hundred and twenty two (88.8%), 15 (2.8%) and 7 (6.0%) of respondents were married, widowed and single respectively. Majority were married because the target population were people aged 40 and above and this correlates with Alemu DS, *et al.*'s study on glaucoma in Ethiopia where majority of the respondents were married.²⁹ There were more Christians, 166 (66.4%) than Muslims, 82 (32.8%) and traditional worshippers, 02 (0.8%) among the respondents, and this agrees with findings in a study by De-Gaulle VF, *et al.*³⁰

Almost all except a few, 05 (2%) had at least primary school education and educational status was found to be significantly related to knowledge of glaucoma which is similar to the study done by Ogbonnaya CE, *et al.*²⁶ Our findings showed that majority, 177 (70.8%) of the respondents were aware of glaucoma and this is similar to the findings of another study also in the South-West of Nigeria where majority 192 (68.8%) were also aware of glaucoma.²⁷ However, this contradicts findings of a study that indicated there was a large proportion of people about 80% that had never heard of glaucoma.²⁵ This difference may be due to the annual World Glaucoma Week in March during which awareness talks were given on the news media and screening programs were carried out in many parts of the state for some years now.

However, half of the respondents said glaucoma was the same as cataract and it could occur without symptoms. More than half, 189 (75.6%), 201 (80.4%) of the respondents said glaucoma is a curable

disease and is common across all age groups respectively. This is worrisome as people may not seek help early by thinking they can be cured like cataract. This contrasts a study by Raghu V.³¹

The source of information in the majority of the respondents was either from a community health center 80(32%) or eye clinic 63 (25.2%). This is similar to a study by Isawumi MA *et al* that indicated the major source of information in their study was visits to the health center and information from relations.²⁵ Source of information through friends and mass media in our study was low which supports the findings of Askira B, *et al.*³² This may be due to reluctance to disclose health problems of families and friends in this part of the world.

Uptake of glaucoma screening

There were significant associations between age, religion, education, occupation and uptake of glaucoma screening. However, there were no significant association between gender, ethnicity, marital status and uptake of glaucoma screening. Majority of the respondents had not had screening before. This may be because the disease is often symptomless, and the motivation for routine glaucoma screening will only stem from good knowledge about the disease as reported by some authors.³³

Attitude to glaucoma screening

Majority of the respondents agreed that screening will prevent glaucoma blindness which is in contrast to findings of some authors.³⁴ Majority of the participants had a good attitude to screening and responded that it should be done at least once a year which opposes the findings of a study which reported the problem of poor attitude towards glaucoma screening in Edo State, Nigeria.³⁵ Also, majority of the respondents in our study, said they would go for glaucoma screening if it were free.

Risk factors for glaucoma

In this study, important risk factors for glaucoma were old age, myopia, Diabetes Mellitus and race. Other authors had reported

eye trauma and intraocular inflammation as major risk factors for glaucoma in their study.³⁶

Limitations

Many men had gone to work during the period of the study leaving the women at home. This accounted for the higher number of women in the study with possible gender bias in the responses.

CONCLUSION

This study provides relevant information on the knowledge, attitude towards glaucoma screening and uptake of glaucoma screening in Sekona, Ede South Local Government Area, Osun state.

Majority of the respondents had good knowledge of glaucoma, with television being the major source of information. However, most of the respondents had not had glaucoma screening. Level of education contributed significantly to the uptake of glaucoma screening. Of concern are respondents that said glaucoma is the same thing as cataract and those that felt glaucoma can be treated with herbs.

Recommendation

It is recommended that the general education of the people should be taken seriously as education was a significant factor in glaucoma knowledge and health education on glaucoma in the various media should be intensified. These may reduce blindness from glaucoma.

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APPENDIX 1

QUESTIONNAIRE

TOPIC: KNOWLEDGE AND ATTITUDE TO GLAUCOMA SCREENING AND UPTAKE IN THE RURAL COMMUNITY OF SEKONA, EDE SOUTH LOCAL GOVERNMENT AREA, OSUN STATE.

This study is about a research on KNOWLEDGE AND ATTITUDE TO GLAUCOMA SCREENING AND UPTAKE IN THE RURAL COMMUNITY OF SEKONA, EDE SOUTH LOCAL GOVERNMENT AREA, OSUN STATE. Your participation in the interview and in every aspect of the study is completely voluntary. Below are items of the questionnaire which you will be required to supply information regarding this topic, your sincerity will be highly appreciated. All the information you will provide for the study will be kept completely confidential. Thanks for your cooperation.

SECTION A: SOCIO-DEMOGRAPHIC STATUS

1. Age: 40-50 () 51-60 () 61-70 () 71 Above ()
2. Sex: Male () Female ()
3. Ethnicity: Yoruba () Igbo () Hausa () Others ()
4. Religion: Christianity () Islamic () Traditional () Others ()
5. Marital Status: Married () Single () Widowed () Divorced () Separated ()
6. Level of Education: Primary () Secondary () Tertiary () None ()
7. Occupation: Unskilled labour () Skilled labour () Professional i.e.
Teacher, Nurse, Others () Unemployed ()

SECTION B: GLAUCOMA RELATED KNOWLEDGE ON RISK FACTORS, SYMPTOMS AND SCREENING.

8. Have you heard of glaucoma before? Yes () No ()
9. What is the source of your information? Television () Radio () Health Centre ()
Friends () Print media () Social media ()
10. Glaucoma can occur without symptoms Yes () No ()
11. Glaucoma often causes high pressure in the eye Yes () No ()
12. Glaucoma can affect both Male and Female Yes () No ()
13. Glaucoma is common across all age group Yes () No ()
14. Is Glaucoma a curable disease? Yes () No ()
15. Glaucoma is the same as cataract Yes () No ()
16. Glaucoma results from poor feeding Yes () No ()
17. Glaucoma runs in the family Yes () No ()
18. Old age is a risk factor Yes () No ()
19. Diabetes mellitus is a risk factor Yes () No ()
20. Short-sightedness is a risk factor Yes () No ()

21. Smoking is a risk factor Yes () No ()
22. Heart disease is a risk factor Yes () No ()
23. Sick cell Anemia is a risk factor Yes () No ()
24. High blood pressure is a risk factor Yes () No ()
25. Race is a risk factor Yes () No ()
26. Steroid use is a risk factor Yes () No ()
27. Have you heard of glaucoma screening before? Yes () No ()
28. Where did you hear about it? Community Health Center () Eye clinic () Religious house () Social and print media ()
29. At what age is glaucoma screening advisable? Less than 40 () 40 and above ()
30. Where can someone be screened for glaucoma? Eye clinic () Community Health center () Market () Church ()

SECTION C: ATTITUDE TOWARDS GLAUCOMA SCREENING

Consider the following scenario and respond accordingly

	Question	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
31	My religion allows glaucoma screening					
32	My culture supports glaucoma screening					
33	Glaucoma screening is too expensive					
34	Glaucoma screening can reduce blindness					
35	Glaucoma can be treated with herbs					
36	Glaucoma screening should be done at least once a year					
37	Glaucoma screening is necessary for people aged 40 and above					

38. If glaucoma screening were free, will you go for it? Yes () No () Not sure ()

SECTION D: ATTITUDE TOWARDS UPTAKE OF GLAUCOMA SCREENING

39. Have you ever had your eyes examined by an eye doctor? Yes () No ()
40. Why were your eyes examined? Eye pain () vision loss () Itching eye () Redness of the eye () Blur vision ()
41. When was the examination done? 6months-1yr () >1yr ago ()
42. Have you ever been screened for glaucoma? Yes () No ()
43. When was the screening done? <6months () 6 months-1yr () >1yr ()
44. Do you think you need glaucoma screening? Yes () No ()
45. Can the screening prevent glaucoma? Yes () No () Not sure ()