

Original Research Article

Awareness and Accessibility of Existing Tertiary Eye Care Facility by Rural Dwellers of Aramoko Community

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ABSTRACT

Availability and accessibility of eye care facility are important at all levels of eye care in order to eliminate avoidable blindness.

Purpose: This study was to assess the awareness and accessibility of the existing eye care facility by the rural dwellers of Aramoko community.

Materials and Methods: A descriptive cross sectional community based survey was carried out among all individuals aged 5 years and above who presented with eye complaints during a sponsored eye camp in the locality. Using a pre-designed and pre-tested interview schedule the following information, demographic characteristics, awareness and accessibility of the eye care facility at the state capital was obtained. Ocular examination was done and diagnosis made. Data obtained were recorded and analysed using Statistical Package for Social Sciences (SPSS) version 20.

Results: A total of 127 participants were screened: 54 (42.5%) males and 73 (57.5%) females with a male to female ratio of 1:1.4. The awareness level of the existing eye care facility was 78 (61.4%); 53.8% among participants >50 years and 46.2% among those <50 years. Of the 78 (61.4%) that were aware 14 (17.9%) had access to the existing facility despite having eye complaints. There was strong correlation between gender and access to eye care facility (ANOVA $F=8.817$, $p=0.004$). Refractive error 71(55.9%) topped the list of diagnosis.

Conclusion: Despite high level of awareness of this existing eye care facility there was low accessibility to the facility with indicators of inadequate and insufficient eye care services.

Key words: Accessibility, Awareness, Community, Eye-care facility.

INTRODUCTION

Even though a wide range of health services exist in most urban and regional centres, they are not necessarily accessible. Accessible health services are physically accessible, affordable, appropriate and acceptable (that is, culturally competent and non-discriminatory).^[1]

Availability and easy access to primary eye care services is essential for elimination of avoidable blindness. Primary eye care helps in raising adequate awareness about eye health and the prevention of

common eye diseases through health education.^[2] Making services available is only a part of the larger solution to the global problem of visual impairment. It has to be accessible and affordable to people in remote rural areas in developing nations where visual impairment is more prevalent. Even in places where services are available and accessible.^[3] The level of access to basic ocular health care in developing nations gives room for a lot to be desired.^[3] Why will visually impaired people or bilaterally blind people not seek eye care

services even when it is available? [4] The uptake of services is determined by several factors or barriers that must be addressed if we are to improve the uptake of services and thereby reduce the prevalence of visual impairment. [5] The key factors in achieving the goals of "Vision 2020" are eye care services and their utilization. [6] It has been reported that utilization of existing eye care facility in Nigerian communities is as low as 25%. [7] The fact that most rural areas do not have eye care facilities make it extremely difficult for the rural dwellers to access eye care. The few facilities in the cities are also very expensive, making it difficult for the poor to access their services. [4] In addition to this, patients face a variety of barriers that combine to prevent them from seeking proper attention at the point of need. The factors such as cost, lack of awareness, cultural beliefs and personal factors were identified as barriers to eye care utilization. [4] Therefore the perception and attitude of the user of this facility should be taken into consideration. If the increasing trend in blindness is to be reversed, then eye care services should not only be available but also be increasingly easily accessible. This study was therefore carried out to assess the awareness of the eye care facility in the capital of Ekiti state Nigeria to improve the uptake of eye care services.

MATERIALS AND METHODS

Aramoko-Ekiti is the headquarter of Ekiti West local government; it is a semi urban town. It is about 26 kilometres from the State capital where the eye facility is located while Federal Medical Centre Ido Ekiti with an existing eye facility is about 28 kilometres away from Aramoko Ekiti. The other communities, a few kilometres apart in this local government area are mainly rural with tarred but rough road network. Each community has a health centre each with no existing eye clinic. This study was carried out in line with the ethical standards according to the Helsinki Declaration of 1975 as revised in 1983.

Verbal consent was obtained from

the Chief or Community head of the selected community where the study was carried out. A cross sectional community based survey was carried out among all individuals aged 5 years and above who presented with eye complaints during a sponsored eye camp in the locality. Using a pre-designed and pre-tested interview schedule the following information demographic characteristics, awareness and accessibility of the eye care facility at the state capital was obtained.

Ocular Examination

After the interview, the visual acuity was assessed using Snellen's or the illiterate 'E' charts as required by the literacy level of the individual. The chart was read by the respondents at six {6} metres away in an open space in broad daylight. Each eye was tested separately unaided and with pin hole, glasses or +10DS as required.

All respondents with visual acuity of less than 6/18 in one eye were examined by an ophthalmologist. All individuals with visual acuity less than 3/60 in the better eye were regarded as blind.

Using the pen - torch and a magnifying binocular loupe, each eye was examined separately for in-turned lashes (trichiasis), the cornea was inspected for cornea opacities and the lens examined for cataract. Other examination carried out included fundoscopy using Keeler professional ophthalmoscope and tonometry using Perkins hand-held applanation tonometer after application of a drop of 0.5% tetracaine eye drops and 2% Fluorescein dye strip. Pupils were dilated using 5% phenylephrine or 1% Tropicamide eye drops after tonometry to further study the posterior segments when necessary. Participants requiring further assessment and treatment were counselled and referred to the eye clinic of Ekiti state university teaching hospital (EKSUTH) Ado Ekiti. Patients that needed refraction were refracted by the optometrist in the team. Data obtained were recorded and analysed using Statistical Package for Social Sciences (SPSS) version 20. Means (Standard

deviations) were used to describe the distributions of continuous variables. Categorical variables were described in Percentages. Comparisons of categorical data were performed with the use of Pearson's chi-square test. For continuous data Student *t*-test was used to compare means. Correlation between two variables was performed using ANOVA and Pearson's correlation co-efficient 'r'. *P* < 0.05 was considered statistically significant.

RESULTS

There were 54 (42.5%) males and 73 (57.5%) females with a male to female ratio of 1:1.4. This difference was not statistically significant (*p*=0.092). The age range of the sample population was between 6 and 82 years. The average age was $\geq 53.2 \pm 15.6$ years.

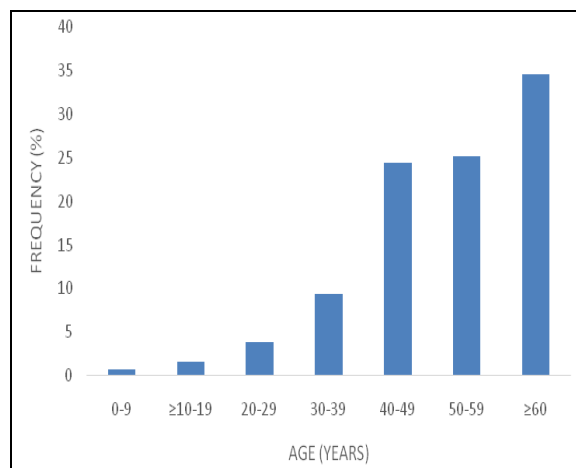


Figure 1: Age Distribution of Participants

The proportion of participants progressively increased with age.

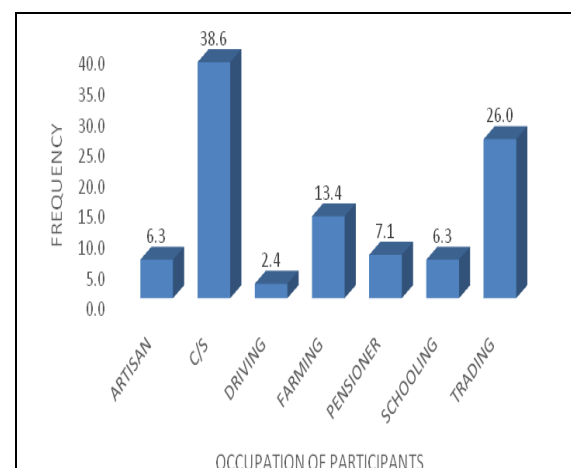


Figure 2: Occupation Distribution

Civil servants constituted 37.8% of the respondents closely followed by traders (26.0%).

The awareness level of the existing eye care facility was 61.4%.

Table1: Age, Gender, Level of Education and Access to Eye Facility versus Awareness of Eye Facility

	Variables Yes (n=78)	Awareness No (n=49)	P-value
Age(Yrs)			
<50	37	13	0.025
≥50	41	36	
Gender			
Male	41	13	0.004
Female	37	36	
Level Of Education			
LITERATE	76	44	0.077
NON-LITERATE	2	5	
Access to Eye Facility			
YES	14	0	0.001
NO	64	49	

Note: Significant (S) = *p*<0.05, Not Significant (NS) = *p*>0.05

The level of awareness was higher among participants above 50 years (53.8%) than those aged 50 years and below (*p*=0.048). The level of awareness of the existing eye facility was higher among the males than the females (*p*=0.004, OR=1.981 CI =1.188-3.304). Although not statistically significant, a greater proportion of those with formal education (97.4%) (Fisher's exact=0.077, OR=1.085 CI =0.981-1.200) was found. Of the 78 participants that were aware only 17.9% had access to the existing the facility despite having eye complaints (*p*=0.001).

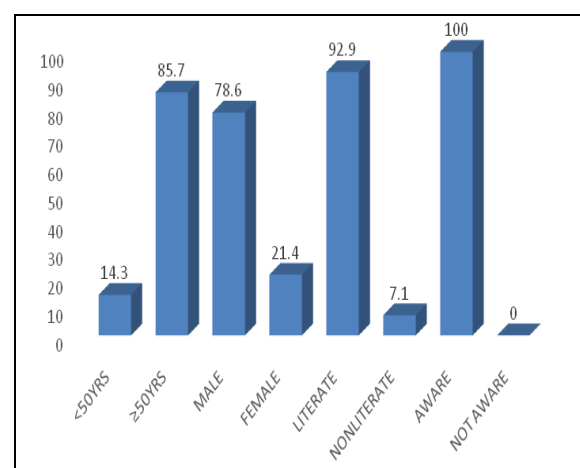


Figure 3: Variable Factors Influencing Access to Existing Eye Care Facility

Majority of participants (85.7%) 50years and above had access to the existing eye care facility.

Males (78.6%) had access to the eye care facility compared to females (21%). All (100%) participants that were aware had access to the facility. There was strong correlation between gender and access to eye care facility (ANOVA $F=8.817$, $p=0.004$).

Table2: Diagnosis of the Participants

	Diagnosis	Frequency (%)
Refractive Error	71	55.9
Allergic Conjunctivitis	29	22.8
Cataract	14	11.0
Glaucoma	8	6.3
Others	5	3.9
TOTAL	127	100.0

Refractive error 71 (55.9%) topped the list of diagnosis while others comprise of Pterygium, Aphakia, Pseudophakia, Iritis and Esotropia.

DISCUSSION

A total of 127 persons participated in the survey. Both sexes were well represented with a slight female preponderance. The proportion of participants in the study was observed to progressively increase with age. This could be possibly due to the development of visually incapacitating among this age group thus necessitating the uptake [4] or could be the fact that most blinding eye diseases are also age related. [8] Majority of the participants were civil servants this is not surprising being a civil servants state. The economic power of the people is tied to the economy status of the state government and by extension the country at large. In time of economic recession it may affect the accessibility of eye care facility particularly if it is not within reach.

A statistically significant proportion of respondents above 50 years (45.5%) were not aware of the existing eye facility compared with only (28%) of respondents aged 50years and below. The age groups with expected age related eye diseases were unexpectedly unaware of the existing eye care facility in the state capital. This is much less desired if the burden of avoidable blindness in the state is to be reduced. Omolase et al opined that lack of awareness

might be a reason why some members of the community genuinely want to seek orthodox eye care. [9]

The level of awareness of the existing eye facility was higher among the males than the females this may be due to the fact literacy status of males are higher with better socioeconomic status to seek eye care information. This was similar to the work done in Fiji Central Province. [10]

The level of education was also found to influence the level of awareness of this facility (OR=1.085CI=0.981-1.200). The people with no formal education were not aware of the facility therefore predisposing more to seeking unorthodox eye care practice. Saw et al. [11] also reported similar findings in their study. If this trend is to be reversed an annex of this eye hospital could be established in this local government area coupled with health awareness campaign through the state owned mass media.

It has been observed that one of the impediments to reducing blindness in any community is the limited access to appropriate eye care services within the community as people who live in communities with inadequate or inaccessible healthcare facilities tend to seek other alternatives. [12] This was partly revealed in the study where more than 80% that were aware of the existing eye care facility had no access to it ($p=0.001$).

A strong correlation was observed between gender and access to eye care facility. Despite the low level of access, majority of the males (78.6%) still had better access to the eye care facility. This may be due to various reasons like financial prowess of men and engrossment of women in domestic activities such as care of children and home. [13] Women need to be supported through empowerment programme in order to assist them to be able to make independent decisions concerning eye seeking behaviour.

Refractive error topped the list of diagnosis followed by allergic conjunctivitis. Refractive error is one of the

most common causes of visual impairment. [14] It is the second leading cause of treatable blindness in many parts of the world (after cataract), and according to the World Health Organization, 153 million people worldwide live with visual impairment due to uncorrected refractive errors. [14]

It was documented that blindness due to refractive error in any population suggests that eye care services in general in that population are inadequate since treatment of refractive error is perhaps the simplest and most effective form of eye care. [14] Having refractive error above cataract indicates that there is inadequate and insufficient eye care services in this local community. This finding is similar to studies of Adeoye [15] and Tebepah [16] where refractive error was also found as the commonest eye disorder.

Allergic conjunctivitis was found to be very common. This is similar to the work of Adeoye [15] and Ogwurike. [17] Cataract and uncorrected refractive errors were found to be leading causes of blindness and uncorrected refractive errors the leading cause of moderate severe visual impairment in the year 2010 as reported by Bourne et al. [18] Cataract a leading cause of avoidable blindness was found to be high in this study. Efforts should be geared towards reducing the magnitude of blindness caused by these treatable causes.

CONCLUSION

Despite good awareness of this existing eye care facility located in the state capital there is low accessibility to the facility with indicators of inadequate eye care services. Recommendation of an annex of this eye hospital could be established in this local government area coupled with health awareness campaign through the state owned mass media.

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