



Original Article

Barriers to utilization of an eye care facility in a rural community in South-South Nigeria

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ABSTRACT

Objectives: The purpose of the study was to describe the barriers to the utilization of eye care services in a rural community in South-South Nigeria.

Material and Methods: A descriptive cross-sectional study using a multistage sampling technique was conducted. The main outcome measure was self-reported previous consultation of the eye clinic at the community's Comprehensive Health Centre (CHC) for eye care.

Results: The study sample included 200 participants. Only 40 (24.1%) respondents had previously consulted at the eye clinic at the CHC in search of eye care. The principal barriers to eye care services utilization were "Ignorance of the existence 53 (47.3%) and schedule" 37 (33.0%) of the eye clinic at the CHC, and "No felt need" 26 (23.2%).

Conclusion: Despite the high prevalence of ocular disorders among the study participants, the utilization of available eye care services was markedly low. The common barriers cited were "Ignorance of the existence and schedule of the eye facility in the community. Improved strategies to improve uptake of services is required."

Keywords: Barriers, Utilization, Eye care services, Rural community

INTRODUCTION

In efforts to tackle the global burden of visual impairment, the "Universal Eye Health: A Global Action Plan 2014-2019" was adopted at the World Health Assembly in 2013 as a follow-up to the VISION 2020 initiative. Although the VISION 2020 strategies are disease control, human resource, and infrastructural developments; the Universal Eye Health as an action plan targets a world where there is universal access to comprehensive eye care services.^[1] Fotouhi *et al.*^[2] have opined that not just the availability but optimal utilization of eye care services is fundamental to achieving the VISION 2020 goals.

Utilization of health-care services is influenced by a number of interactive factors. Anderson's model on health-care utilization classifies these factors into three, namely, predisposing, enabling, and need factors.^[3,4] Another class of factors is the limiting factors. These are variables that mitigate or serve as obstacles to utilization of healthcare services. They are usually referred as barriers.^[5-7]

Several barriers to eye care services utilization such as cost/cannot afford treatment, time constraints, transportation/no escort to treatment site, thinks problem was minor, fear, advised

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by others to do something else, do not know where to go/not aware of place for treatment, dissatisfaction from previous visit, and preference for alternative medicine treatment have been reported.^[5-10] Notably, these factors could vary from one geographic area to another, and even within same geographic area, they could vary from one eye facility or service point to another.^[9] Furthermore, only a few studies in Nigeria have considered the utilization of eye care services in broader terms, majority of the studies on the uptake of eye care services have focused primarily on cataract services.

Therefore, a better understanding of the barriers to utilization of eye care services in general, among rural dwellers should aid in the establishment of evidence-based eye care programs that would reach the underserved and enhance the uptake of eye care services. The aim of this study was to determine the barriers to utilization of eye care services at the eye clinic of a Comprehensive Health Centre (CHC) domicile in Okoyong – a rural community in Cross River State, South-South Nigeria.

MATERIAL AND METHODS

The study was conducted in Okoyong – a rural community in Odukpani Local Government Area of Cross River State, South-South Nigeria. The community is made up of six villages, namely, Ikot Effiong Otop, Ikot Effiong Ebe, Nkita, Nta Obo, Okoro Ntai, and Asiaha Obufa, with an estimated population of 8000, 1500, 1000, 2000, 4000, and 2500, respectively.^[11] The only public tertiary health center in the state, University of Calabar Teaching Hospital (UCTH), which is located in the state capital Calabar and about 45 km from Okoyong; operates a CHC within the community as its rural outpost for over 30 years. The CHC delivers health-care services such as maternal and child health services, family planning services, communicable diseases clinic, immunization clinic, explorations and repair, herniorrhaphy, appendectomy, incision and drainage, cesarean sections, and manual vacuum aspiration, as well as eye care services: General ophthalmic clinic services, refraction, and surgical services, especially cataract and pterygium surgeries. The eye clinic, which has been in operation at the CHC for over 15 years, is managed by the Ophthalmology Department of UCTH. An ophthalmic team consisting of a senior resident ophthalmologist, an optometrist and an ophthalmic nurse, under the supervision of a consultant ophthalmologist, run the eye section with a schedule of. However, due to lack of residence for the team, bad access road from the state capital to Okoyong, and the rotatory basis of the team members, the schedule has for about 3 years been quite erratic.

The choice of Okoyong for the study was purposive, as it has an eye care facility. The study was a descriptive cross-sectional study in which 200 participants were randomly sampled from the six villages. The sampling frame was adults 40 years

and above who are normally resident (that is, continuous residence for at least the past 3 months before the study). This age range was targeted based on the available evidence that the burden of visual impairment and certain ocular morbidity such as cataract, glaucoma, presbyopia, and age-related macular degeneration is higher among this age category.^[12] They are also noted to be more responsive to questioning hence a more reliable data could be obtained.

Multistage sampling technique was employed. First stage, the sample size per village was determined by probability proportionate allocation-by-size procedure. Next stage was a simple random sampling procedure for eligible subjects within each village. Commencing from a random start determined by spinning a bottle at the center of each village and proceeding from the first inhabited house to house, those aged ≥ 40 years were enumerated until the required sample per village was completed. To obtain a representative outcome, that is, to avoid clustering effect of response, in each household, only one eligible subject was recruited. If more than 1 eligible subject inhabits a household, one eligible subject was then chosen at random by drawing lots. People in the same households are likely to have had similar experiences.

Ethical approval UCTH/HREC/33/271 for the study was obtained from the Health Research Ethics Committee of UCTH. Written informed consent was obtained from the participants by the research assistant. After the details of the study were thoroughly explained, the participants were interviewed with a semi-structured questionnaire to obtain information such as demographic data, medical history, oculo-visual symptoms, previous utilization of eye care services, and barriers to eye care services. In the barriers to eye care section of the questionnaire, participants were allowed to choose more than 1 response if it applies. For the purposes of this study, eye care service was defined as that delivered and/or obtained in the eye clinic of the CHC, Okoyong. Utilization of eye care services was defined as any previous consultation at the eye clinic of the CHC, Okoyong, for an eye or vision problem.

Visual acuity was tested using a Snellen chart or an Illiterate E chart located 6 m from the participant in a shaded open space in daylight; each eye was tested separately. The last line on the chart, which was read completely, was recorded as the visual acuity. Visual acuity test was then repeated for each eye using a pinhole.

Ocular examination was subsequently performed by an ophthalmologist in a dark room inside the subject's house or a nearby alternative room. All subjects underwent a pen torch examination of the external adnexa and anterior segments of both eyes including an assessment of pupillary response. Direct ophthalmoscopy was performed to ascertain lens clarity and to examine the posterior segment. Pupillary

dilatation was performed when media opacities precluded a good view of the fundus or if the pupils were too small. Dilation was achieved with the instillation of 1% tropicamide and 2.5% phenylephrine eye drops.

Collected data were inputted into a database and analyzed using the Statistical Package for the Social Sciences software version 20.0. Frequencies and means were generated.

RESULTS

Altogether 181 participants aged ≥ 40 years completed the face-to-face interview, and ophthalmic examination of the 200 people who were enumerated and registered, giving a response rate of 90.5%. The remaining 19 people, who were not available for all the stages of the study, were excluded from the further analysis. Mean age of respondents was 53.8 ± 3.0 years (range: 40–80 years). There were 79 males (44.0%) and 102 females (56.0%). [Figure 1] presents the age and gender distribution of the respondents.

One hundred and twenty-four (68.5%) respondents were below Nigerian minimum wage (<₦18,000) earners and 57 (31.5%) earned Nigerian minimum wage (₦18,000) and above. A total of 41 (22.7%) respondents had not received any form of education while 140 (77.3%) had received at least primary school education. Eight-five (47.0%) respondents were farmers, 32 (17.7%) were traders, and 24 (13.2%) were dependents.

Majority 166 (91.7%) of the study participants had ocular disorders in at least one eye and 15 had no clinically obvious ocular abnormality on either eye. On evaluation, the common ocular disorders were presbyopia (43.8%), ocular surface disorders (18.2%), and refractive errors (16.5%). Two (1.1%) respondents were blind with a presenting visual acuity worse than 3/60 in their better eye, and 14 (7.7%) were blind in either eye. Three (1.7%) had severe visual impairment (SVI) with a presenting visual acuity worse than 6/60 but

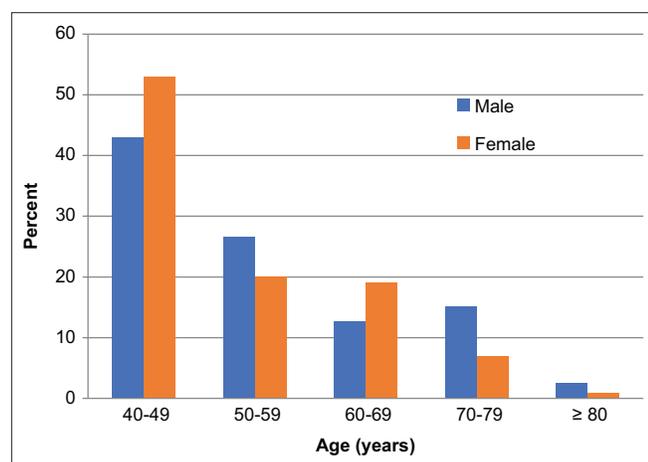


Figure 1: Age and gender distribution of 181 respondents.

better than 3/60 in their better eye and 5 (2.8%) had SVI in either eye. Twenty-two (12.2%) respondents had moderate visual impairment with a presenting visual acuity worse than 6/18 in the better eye. One hundred and fifty-four (85.1%) respondents had presenting visual acuity better than or equal to 6/18 in the better eye.

Of the 166 subjects with oculovisual disorders, 112 (67.5%) had never sought eye care at the CHC eye clinic or elsewhere, 40 (24.1%) respondents had previously consulted at the eye clinic at CHC, and 14 (8.4%) had previously consulted orthodox facility elsewhere to seek eye care.

Barriers to utilization of eye care services at CHC

Ignorance of the existence 53 (47.3%) and schedule 37 (33.0%) of the eye clinic at the CHC were major barriers to eye care services utilization at CHC. Other common barriers were “No felt need” 26 (23.2%), eye problem “not serious enough” 23 (21.0%), and “lack of money” 20 (18.0%). [Table 1] presents the barriers reported by 112 respondents.

Level of service satisfaction

Nineteen (47.5%) respondents that had sought for eye care services at the CHC eye clinic reported dissatisfaction. [Table 2] presents the distribution of the level of satisfaction of the eye care services offered at CHC.

DISCUSSION

Despite the high prevalence of ocular disorders (91.7%) among the study participants, the utilization of available eye care services, as evidenced by previous consultation for eye

Table 1: Barriers to utilization of eye care services at CHC.

Barriers	No. of responses n (%)
Social	
No escort	4 (3.6)
Waiting for benefactors	7 (6.3)
Financial	
No money	20 (18.0)
Service related	
Erratic availability of eye doctor	7 (6.3)
Waiting time	9 (8.0)
Person related	
No perceived need	26 (23.2)
Fear	4 (3.6)
Not serious enough	23 (21.0)
No time	5 (4.5)
Awareness	
Not aware of eye clinic existence	53 (47.3)
Not aware of eye clinic schedule	37 (33.0)
Not aware of cost of services	12 (11.0)

CHC: Comprehensive Health Centre

Table 2: Level of eye care services satisfaction.

Satisfaction level	Frequency <i>n</i> =40 (100%)
Very satisfied	10 (25.0)
Partially satisfied	5 (12.5)
Indifferent	6 (15.0)
Partially dissatisfied	9 (22.5)
Very dissatisfied	10 (25.0)

problems at the CHC eye clinic by participants, was markedly low (24.1%) in this rural population. This correlates with the reports from similar studies in Nigeria and other developing countries (Ghana, Nepal, and India) where the utilization of eye care services in rural communities was notably low; ranges from 7% to 38%.^[5-10,13,14] The eye care service utilization rate in this study is also similar to the lower-middle-income countries and global eye services utilization estimates of 20% and 38%, respectively.^[15] This finding has strong implications for achieving the Vision 2020 goals in this community, as well as similar rural communities in West Africa. Underutilization of eye care facilities will lead to increasing magnitude of eye disease and blindness if specific interventions are not instituted. This finding also suggests inequitable eye health coverage among the rural populace, which is at variance to the Sustainable Development Goals. Conscientious efforts need to make to bridge this ominous gap. Ensuring equal access to eye care services will require advocacy at all levels; national, district, and community.

Identifying the mitigating factors against eye care services utilization in a given geographical area and toward a domiciled eye care facility is valuable to understanding the contextual dynamics in eye care seeking behavior. It is also a fundamental step in situational analysis stage in the planning cycle. This study had identified “Ignorance of the existence (47.3%) and schedule (33.0%) of the eye clinic at the CHC;” “No felt need (23.2%),” and “eye problem not serious enough” (21.0%) as the principal barriers to eye care services utilization in the study area. This finding is consistent with some studies in rural communities in developing countries^[16-20] that had reported lack of knowledge of available eye care services as the major barrier to utilization. Palagyi *et al.*^[17] had reported that rural dwellers were almost 4 times more unlikely to seek eye care than their urban counterparts due to lack of awareness of the available eye care service. In Osun state, Southwest Nigeria, Kolawole *et al.*^[20] had also reported that despite the availability of free cataract services in the community, lack of awareness of availability of cataract services was a major reason for poor utilization of the service. However, other studies among rural populace in developing countries had reported “financial constraints,” “fear of treatment outcome,” “No felt need,” and “No escort,” as principal barriers to the utilization of eye care services. It is, therefore, pertinent to

note that barriers to the utilization of eye care services could vary from one rural area to another, toward one facility to the other, from one eye disease to the other, and even by age group. Hence, situational analysis before the establishment of eye care services should be contextual and well guided so as to optimize an effective outcome.

It is pathetic, that after so many years of the establishment of the eye clinic at CHC, a significant proportion of the study participants was not aware of its existence and schedule. There is an urgent need for a massive but systematic publicity on the availability of eye care facility. There is also a need for the stability of the eye care team. The irregular clinic schedule and erratic availability of eye care services at the CHC, which is largely due to the fact that the team members are usually non-residential in the community and are periodically reshuffled, would have negatively impacted on the respondents’ awareness of the available eye care services. Raising awareness of the community about eye diseases and the services available together with strengthening of primary eye health services available at the local health facilities could help bring eye health services in closer proximity to the rural population.^[5]

Quite importantly, the level of dissatisfaction found in this study is worrisome. Nearly half (47.5%) of respondents who had previously consulted at the eye clinic in CHC expressed some dissatisfaction. Consumer dissatisfaction is a well-documented barrier in sustaining eye care utilization.^[21,22] These dissatisfied clients would rather serve as de-motivators. This may also explain the low utilization rate of the eye care facility, as these dissatisfied clients may have found no reason to mobilize others.

CONCLUSION

It is imperative to realize that barriers to utilization of eye care services could be location or facility specific. Concerted efforts should be made to decipher the specific primary barriers for any given area and/or facility, and targeted planning and execution employed to overcome these factors, with a view to improving uptake and eliminating needless oculo-visual disorders.

Declaration of patient consent

Institutional Review Board (IRB) permission obtained for the study.

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Conflicts of interest

There are no conflicts of interest.

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