BARRIERS TO UTILIZATION OF EYE CARE SERVICES IN RURAL COMMUNITIES IN EDO STATE, NIGERIA

EBEIGBE JA, OVENSERI-OGBOMO GO

ABSTRACT

Background: Visual impairment and blindness due to ocular diseases are significant public health problems in developing countries, including Nigeria. Evidence suggests that poor uptake of available eye care services by potential beneficiaries is a major barrier to attaining universal access to eye care services. **Objectives:** To determine the factors that prevents utilization of eye care services in rural communities. **Methods:** This was a cross- sectional community based survey. Three rural communities in three different Local Government Areas- Obe, Evboneka and Orior of Edo State were selected by convenient sampling. One hundred subjects were selected by systematic random sampling from each of the three villages visited. This made a sample size of 300. There were 132 (44%) males and 168 (56%) females. The age range was between 40 to 75 years, with a mean age of 55.2 ± 2.1 years. **Results:** The barriers identified were felt need for eye care services (33.3%), cost of treatment (26.7%), the need for escort (8.3%). and social engagement/belief (8.3%). Sixty-eight per cent of the sample population had never had their eyes examined in a hospital before. Of the thirty-two per cent of those who had gone to the hospital for eye care services, 21% were females. This resulted in a statistically significant difference in gender utilization of eye care services ($p<0.0001$). There was also a significant association between the level of education and health care seeking behaviour of the sample population ($p = 0.008$). **Conclusion:** The findings of this study suggest that ignorance, poverty and gender are major barriers to utilization of eye care services by communities. Health promotion programmes need to incorporate community based health education and explore ways of making eye care services affordable in rural areas. Also, enlightenment programmes and workshops targeted at men should be carried out to educate and encourage better eye care seeking behaviour among them.

KEYWORDS : Eye care, barriers, cost, utilization, gender.

INTRODUCTION

It has been reported that utilization of existing eye care infrastructure in Nigerian communities is as low as 25% compared to the optimum target utilization set at 90%[1]. The problem of low uptake of eye care services in developing countries has been given lower priority compared to the need for resource provision[2-5]. Evidence shows that even when eye care services are available, they are under used by potential beneficiaries[6-10].The low level of utilization of eye care has been previously documented in prevalence surveys in developed nations. The Baltimore Eye Survey found that within a five-mile radius of the Wilmer Institute (Johns Hopkins Hospital), 35.8% of people older than 45 years were needlessly disabled by curable cataracts, 6.6% by diabetic retinopathy, and 4.7% by glaucoma[11].

The level of access to basic ocular health care in developing nations gives room for a lot to be desired. One recent study[12] found that over two thirds of adults over age 40 in a rural Indian population with low vision secondary

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to cataracts, glaucoma, and refractive error had never sought eye care, while another[13] showed that 90 per cent of the people seeking eye care in poverty-stricken areas in Sri Lanka had similarly had no previous eye care.

In the past, health care delivery systems have failed to recognise and address the beliefs and lifestyles of rural communities. This implies that apart from manpower and infrastructure development, community programmes are needed to ensure utilization of eye care services. In Chile, for example, uncorrected refractive errors account for 33% of those with vision under 6/18 and only 36% of children with reduced acuity use spectacles[14]. Lack of awareness, non-availability of accessible and affordable services are the main causes of blindness and visual impairment. Oduntan and Raliavhegwa[15] found that only 39% of the respondents in a rural community survey in South Africa had their eyes examined within five years or more despite the accessible and affordable eye care services. Factors such as cost, lack of awareness, cultural beliefs and personal factors were identified as barriers to eye care utilization. The poor utilization was highlighted as a concern because the time interval between eye examinations was long enough for certain avoidable or curable ocular diseases to cause irreversible visual loss or blindness.

Visual impairment and blindness due to ocular diseases is a significant public health problem in many parts of the world including Nigeria[16-18]. Refractive errors and cataracts are the leading causes of avoidable blindness and visual impairment[19-22]. Uncorrected refractive errors and cataract are conditions most commonly found in rural, often remote, underdeveloped areas. However, most of the hospitals and health care centers are located in the urban areas[23-25].

The ultimate goal of "Vision 2020: The Right to Sight" is to integrate a sustainable, comprehensive, high-quality, equitable eye care system into strengthened national health-care systems[26,27]. The initiative sets a major challenge requiring a significant increase in the provision and uptake of eye care services. 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[28-30]. The key factors in achieving the goals of "Vision 2020" are eye care services and their utilization[31].

Why is it that visually impaired people do not seek eye care services even when care is available? The answer to this question is multi fold and it would appear that lack of awareness about treatment availability and benefits is not the primary problem. Rather, patients face a variety of barriers that combine to prevent them from seeking proper attention at the point of need. This study therefore aims to determine what these barriers are in some rural communities in Edo state, Nigeria.

METHOD

This was a cross sectional community based survey carried out between June and December of 2012. Three rural communities - Obe, Evboneka and Orior in Oredo, Uhunmwonde and Ovia North East Local Government Areas of Edo State respectively, were selected by convenient sampling. Majority of the inhabitants of these communities are farmers with a few artisans. The communities boast of a health centre each with no existing eye clinic. One hundred participants who met our inclusion criteria were randomly selected from each of the three villages visited by a systematic random sampling technique. This was done by selecting every third person who reported to the community square in response to the announcements that were made earlier in the communities. This made a sample size of 300. Subjects selected were given identification numbers and their addresses obtained. There were 132 (44%) males and 168 (56%) females. The age range was between 40-75 years, with a mean age of 55.2 ± 2.1 years. Basic Optometric tests like visual acuity, monocular direct ophthalmoscopy, retinoscopy and external eye examination with pentorch were carried out on

the participants. Subjects were then presented with validated open-ended questionnaires which were used to obtain information for this study. The help of an interpreter was enlisted for the majority of those who could not read or understand English. Participants were examined in their homes after the selection process. Exclusion criteria were children and wards, subjects who were deaf and dumb and those who were not willing to participate in the examination procedures.

Ethical approval was given by the University of Benin Ethics' Committee. Oral permission was given by the 'Enogie' of the respective communities and informed consent was obtained from the participants after the purpose of the study was explained in details to them. The questionnaire contained a list of items, which was categorized into personal, social and economic barriers. Demographic data of each of the respondents was also duly recorded.

Statistical analysis:
Data collected was subjected to statistical analysis using percentages, Chi square and presented in tables.

RESULTS
Sixty-eight per cent of the sample population had never gone for an eye examination in a hospital before. Forty three percent of the sampled population had secondary education, 22% had tertiary education while 35% of them went to primary school. About 58% had reportedly visited a traditional medicine practitioner several times for one eye condition or the other. Of the thirty-two per cent of the sample population that had gone to the hospital for eye care services, 21% were females. This resulted in a statistically significant difference in gender utilization of eye care services, $p<0.0001$. There was also a significant association between the level of education and health care seeking behaviour of the sample population, $p = 0.008$.
A list of the barriers to utilization of eye care services and the sample population responses to them is given in the table 1. Table 2 shows the list of eye care service needs of the people.

Table 1: Barriers to utilization of eye care services among Participants

Barriers	Males No	(%)	Females No	(%)	Total No	(%)
Felt need	63	(21.0)	37	(12.3)	100	(33.3)
Cost	20	(6.7)	60	(20.0)	80	(26.7)
Waiting time	12	(4.0)	8	(2.7)	20	(6.7)
Language barrier	3	(1.0)	12	(4.0)	15	(5.0)
Distrust in orthodox medicine	3	(1.0)	7	(2.3)	10	(3.3)
Social engagement/Belief	13	(4.3)	12	(4.0)	25	(8.3)
Distance to clinic	10	(3.3)	6	(2.0)	16	(5.3)
Transportation	3	(1.0)	6	(2.0)	9	(3.0)
Need for escort	5	(1.7)	20	(6.6)	25	(8.3)
Total	**132**	**(44.1)**	**168**	**(55.9)**	**300**	**(100.0)**

Table 2: Eye care service needs among the sample population

Conditions	Males No (%) n= 132	Females No (%) n= 168	Total No (%) n= 300
Binocular/monocular blindness (VA <6/60)			
Cataract surgery	36 (27.3)	33 (19.6)	69 (23.0)
Trichiasis surgery	10 (7.6)	6 (3.6)	16 (5.3)
Combined cataract/trichiasis	4 (3.0)	2 (1.2)	6 (2.0)
Refractive errors	24 (18.2)	13 (7.7)	37 (12.3)
Glaucoma	8 (6.1)	4 (2.4)	12 (4.0)
Total	**82 (62.1)**	**58 (34.5)**	**140 (46.7)**
Binocular or monocular visual impairment (VA 6/24 to 6/60)			
Cataract surgery	22 (16.7)	28 (16.7)	50 (16.7)
Trichiasis surgery	4 (3.0)	2 (1.2)	6 (2.0)
Refractive error	42 (31.1)	36 (21.4)	78 (26.0)
Glaucoma	8 (6.1)	12 (7.1)	20 (6.7)
Total	**76 (57.6)**	**78 (46.4)**	**154 (51.3)**

DISCUSSION

Lack of felt need and ignorance of condition accounted for the commonest barrier to utilization of eye care, with more being males. Most males felt they had no need to have their eyes examined or go to an eye care centre. There was a high significant difference in the utilization of eye care services between the males and females. Hence, it can be said that the females seek eye care services better than their male counterpart. This is in agreement with the study by Foutouhi *et al*[3] who reported that women in Iran were more likely to seek eye care services than men. Also, Palagyi *et al*[26] reported that women in Timor-Leste with either low vision or blindness were more likely to seek treatment than men. Schaumberg *et al*[34], also reported that women tended to have eye examinations more frequently than men.

On average, women tend to live longer and the possibility of developing age related conditions which leads to visual impairment could accelerate the usage of eye care services. Previous reports[7,9,31] have suggested that women were more careful about their eye health than men thereby suggesting a gender influence on utilization of eye care services. This study was inconsistent with the study by Robin et al[30] where no significant difference was reported between sexes for utilization of eye care services in the rural south India.

That there is lack of felt need or ignorance of eye condition reflects the importance placed on such visual problems that are asymptomatic such as glaucoma over and above other health conditions. Reduced vision is usually not considered a problem until the individual can no longer perform visual tasks. Also any pain that is tolerable is borne until it becomes unbearable. Hence conditions that would make them seek eye care are those that have grown worse. This is consistent with the Nigerian study[32] which reported ignorance 88.9%, as the greatest barrier to uptake of vision services. It also agrees with the work by Kovai et al[6] in South India who concluded that the lack of felt need was the main barrier irrespective of severity of uncorrected presbyopia.

The cost of treatment was the second commonest barrier to the utilization of eye care. Here, the response of the females to cost as a barrier was a lot higher compared to their male counterparts. This result is similar to the reports of other Nigerian studies[1,21,25,29] where cost was found to be a major barrier to uptake

of eye care services. In many rural areas of the world, poverty is a major issue, hence residents are not able to afford the cost of eye care services and therefore conditions which could have been treated at an early stage are not attended to and may result in low vision and blindness. Similarly, Nedgwa *et al*[18] reported that lack of money was one of the main barriers to eye care use in Kenya. Also in the Gambia[33], the most frequently identified barrier to uptake of cataract surgery was cost. Dhaliwal and Gupta[12] found that barriers to the uptake of Surgery in India were related to cost and affordability. Similarly, Gnyawal et al[4] also identified finance as one of the barriers to uptake of cataract surgery in Gandaki Zone, Nepal. Palagyi *et al*[26] reported that low utilization of eye care services among rural dwellers in Timor-Leste was inability to afford transport to eye care service.

In this study, apart from the felt need and cost of treatment, other barriers identified included the long wait in the clinic and the need for escort. Therefore, in addition to an increase in service quantity, there need to be an improvement in intervention and service quality, to facilitate equitable, acceptable and effective eye care. The development, implementation and monitoring of standards of care and treatment guidelines are some ways by which this may be achieved.

The fact that the majority of the sampled population (68%), in this study had never gone for an eye examination is a great cause for concern. This can also be attributed to the lack of felt need or ignorance of the people. Apart from not understanding the implication of their disease condition, some play down on the severity of the condition, hoping it will resolve soon on its own. Others might be discouraged by the poor outcome of those who had previously gone to the hospital.

Ensuring equal access to eye care services will require advocacy at all levels, national, district and community. Although, it is beyond the scope of eye care programmes to change gender roles and expectations, gender issues that affects VISION 2020 goals needs to be addressed. Identification of factors affecting utilization of primary eye care services helps the government and other eye care providers to address inequity issues in eye care program. With majority of our population living in rural areas where little or no health care facilities are available, awareness about eye care remains poor. The few facilities available are located in towns and cities where rural population has little access. 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.

Cost as a barrier could be reduced by implementing different pricing mechanisms to make sure that the poor can be treated even if they cannot pay. Distance as a barrier could also be reduced by setting up outreach programs in rural areas and providing transport from villages direct to the hospital and back. The ability of the eye care providers to ensure community participation and to provide quality eye care during outreach programs would efficiently market the eye care services.

Health education intervention must be designed specifically to increase awareness of symptomless diseases and to detect them at early stages and people should be made aware that most vision problems can be corrected and blindness can be prevented by timely seeking eye care services.

National health Insurance scheme should be made operational at the community level so that more people can gain access to eye care services. Attitudes and cultural factors need to be investigated in the rural communities and appropriate education provided, if low vision and blindness are to be reduced nationwide.

If elimination of avoidable blindness is to be

achieved in Nigeria before 2020, all the components, namely disease control, human resource development and infrastructural development must work in concert for an effective eye care delivery system. This would be possible if attempts are made to continually obtain and use good quality population-based data on blindness, perceived barriers to eye care services and effectiveness of various eye care delivery systems.

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