

Barriers to Accessing Eye Care Services in the Federal Capital Territory, Abuja, Nigeria

Ibeneche H.O.¹, Ekpenyong B.N.² and Ebri A.³

1. *HJ Eye Clinic Abuja, Nigeria*
2. *Department of Public Health, Faculty of Allied Medical Sciences, College of Medicine, University of Calabar, Cross River State, Nigeria.*
3. *Brien Holden Vision Institute, West Africa sub- regional office, Calabar, Cross River State, Nigeria*

Corresponding Author: Ibeneche HO | Email: hualderjoel@yahoo.com | Phone: +2348033288116

Abstract

This study was carried out to determine the barriers to accessing eye care services in the Federal Capital Territory (FCT), Abuja. Using 25 item semi-structured questionnaire, a descriptive cross sectional survey was carried out. The study population comprised 400 respondents. Data generated from the survey was analysed using SPSS 20 and was presented in tables, figures and percentages. The result from the study showed that 74.5% of the respondents were aware of the need for regular eye examination, yet they did not seek care. More males 85(55.9%) accessed eye care services than the females 67(44.1%), especially those in older age grade. Out of the 400 respondents, only 152 (38%) respondents utilized eye care services while the rest resorted to traditional methods of treatment. Utilisation significantly increased with age ($p < 0.05$), while utilisation by gender showed no statistically significant difference ($p > 0.05$). The barriers affecting the access of eye care services as reported by respondents included; no felt need, this accounted for 153(61.7%), others were high cost of services, lack of money, non-availability of eye care services, long waiting time and reluctance to go for eye care services. Although many respondents were aware of the need for regular eye check, the utilization was low. There should be concerted effort by the Federal Government, Non-Governmental Organisations (NGOs) and eye care practitioners to sensitize the community on the need for regular eye checks and also establish eye clinics/centres that are affordable and accessible to the people.

Key words: Barriers, access, eye care, utilisation, FCT

Introduction

Visual impairment and blindness due to ocular diseases is a significant public health problem in many parts of the world. According to World Health Organization Report in 2010, about 285 million people are visually impaired worldwide and out of these numbers, 39 million (14%) are blind while 246 million (86%) have low vision or severe visual impairment and 90% of them live in developing countries with poor economy¹. There have been several global initiatives to alleviate the increasing burden of eye diseases and some of the strategies include developing and establishing eye care services. In spite of these measures, evidence showed poor uptake and utilisation of these services. The efforts may be hampered by poor uptake of service. Barrier studies are being conducted in many settings to understand community poor response to service uptake with a view to influence positive behaviour change. Nigeria with an estimated

1. Mariotti SP, Pascolini D. Global estimates of visual impairment. *Br J Ophthalmol*.2012; (5):614-618.

population of about 181 million people (National Bureau of Statistics, 2012; United Nations, 2017) is the most populated country in Africa^{2,3}. The results of the National blindness and low vision survey conducted from 2005 – 2007 reported the prevalence of blindness and visual impairment at 0.78% for all ages and 4.2% for people aged 40 years and above⁴. If eye care services are made accessible to the people, prevalence of avoidable causes of blindness will be reduced⁵.

The Federal Capital Territory (FCT), Abuja according to the 2006 census has a population of 1,405,201. According to the national visual impairment and blindness survey in Nigeria, the North West geopolitical zone has the highest number of blind people (28.6%)^{4,5}. Both urban and rural dwellers in the Federal Capital Territory exhibit similarity in the prevalence of eye diseases yet there is a significant difference in their utilization of eye care services.

There are three major broad factors that affect the utilization of eye care services namely: availability, affordability and accessibility. Studies within and outside Nigeria have implicated gender, cost, ignorance, attitude, lack of education and urban residence as common reasons that contribute to the utilisation of eye care services^{6,7,8,9,10}.

In Nigeria and the Federal Capital Territory (FCT), eye care services are provided by ophthalmologists, optometrists, ophthalmic nurses and dispensing opticians. The available services range from routine eye examinations to invasive surgical procedures. Majority of the eye facilities are located in the cities and operational hours are usually from 8.00a.m to

6.00p.m on week days and only a few operate on weekends. The consequence is mal-distribution of skilled personnel and facilities. Evidence suggest that improved access to adequate health care leads to enhanced health outcomes. If eye care services are accessible, people who need the services will use them¹¹. The prevalence of blindness and visual impairment are high in Nigeria, determining the barriers to access of eye care services is essential for developing strategies to prevent blindness. This research was therefore carried out to determine the barriers affecting utilization of eye care services in the Federal Capital Territory Abuja, Nigeria.

Methodology

The study was a cross-sectional descriptive survey using knowledge, attitude, and perception (KAP) methodology in gathering data using both quantitative and qualitative methods. Questionnaire based interviews was used to collect quantitative data. Open ended questions were utilized to gather qualitative responses.

The instrument for data collection was the semi structured questionnaire. The questionnaire was pre-tested outside the study area on 20 respondents to determine its validity and reliability. The desired sample was calculated using the formula¹² $n = Z^2 Pq/d^2$ (Lawanga and Lemeshow, 1990¹²) and considering expected prevalence of 50% and allowing for an error of 5% at 95% confidence interval the sample size was calculated to be 400.

The FCT is located in the North central of Nigeria with a population of 1,405,201(2006 census) and made up of six area councils namely; Gwagwalada, Kuje, Bwari, Kwali, Abaji and the Abuja Municipal. Simple random

2. Nigerian National Bureau of Statistics, 2012
3. United nation, World population prospects, 2017 revision.pop/DB/wpp/Rev.2017/pop/F15-1
4. Kyari F, Gudlavalleti MVS, Sivsubramaniam S, Clare GE, Abdul MM, Entekume G, Foster A, the Nigeria National Blindness and Visual Impairment Study. Prevalence of blindness and visual impairment in Nigeria: The national blindness and visual impairment survey. Invest. Ophthalmol. Vis. Sci.2009 ;(5):2033-2039
5. Abdull MMS, Murthy GV, Gilbert C, Abubaka T, Ezelum C, Rabi MM. Nigerian National blindness and visual impairment Study group. Invest. Ophthalmol. Vis. Sci.2009;50(9):4114 -20
6. Nirmalan PK, Katz J, Robin AL, et al. Utilisation of eye care services in rural south India: the Aravind Comprehensive Eye Survey. The British Journal of Ophthalmology. 2004;88(10):1237-1241. doi:10.1136/bjo.2004.042606.
7. Ekpenyong BN, Ikpe BM. Uptake of Eye care Services in University of Calabar Teaching Hospital, Cross River State, Nigeria. Nigeria Journal of the Nigerian Optometric Association. JNOA.2009;15(1)24-27
8. Ocansay S, Kumi-Kyereme A, Awusambo-Asare K, Ileechie AA, Boadi-Kusi S, Abraham CH. utilization of eye care services among Ghanaian Elderly Population: Evidence from a peri-urban community. Ophthalmology Research: An international Journal. 2013; 1(2):89-101.
9. Ebeigbe J, Ovenseri-Ogbomo G. Barriers to utilization of eye care services in rural communities in Edo State, Nigeria. Borno Medical Journal.2014;11(2):98 -104
10. Ndep AO, Ekpenyong BN, Okareh O, Peter A, Ezenwankwo A, Ayuk FN. Eye care seeking behaviour of Patients in rural Cross River State, Nigeria. Research on Humanities and Social Sciences. 2017;7(2);11-15
11. Ekpenyong, B.N, Kovin Naidoo, Kelechukwu Ahaiwe, Onyebuchi Ndukwue, Ogar Emmanuel, Onyeka Ezenwankwo, Ekanem Ekanem. (2017). Visual Status and P revalence of Eye Disorders among School-age Children in Southern Nigeria. African Vision and Eye Health Journal 76:1
12. Lwanga, S. k, & Lemeshow, S. (1991). Sample size determination in health studies: A practical manual. World Health Organization Bulletin, 1 – 80.

sampling technique was used to select Bwari area council out of the six area councils. Bwari area council is made up of 10 wards. A random selection of clusters of population based household was used to enumerate the study sample. Clusters of approximately equal population size were defined geographically by using the census data, to create clusters of reasonably uniform size. The cluster was defined such that they contain 40 study participants per ward. The study participants comprised of adults 18 years and above.

Results

Results show that nearly half of the respondents 196 (49.0%) were within the age group of 18-35 years. Those in the age group of 36-53 years were 139 (34.75%), and 54 years and above were 65 (16.25%) of the study population. The sex distribution showed that 208 (52%) were male and 192 (48%) were female. Majority of the respondents were traders 135 (33.75) followed by civil servants 121 (30.25%) Table 1.

Respondents with secondary education had the highest number with 191 (47.75%), those with tertiary education were 115 (28.75%), respondents with primary education were 58 (14.5%) and those with no formal education were 36 (9.0%) (Table 2). Majority of the respondents were married 259 (64.75%), seven (1.75%) were widows, six (1.5%) were widowers and four (1.0%) were divorced (Table 1).

Out of 400 respondents, 299 (74.75%) were aware of the need for regular eye check. Majority of the respondents were not aware of any eye care services available in their locality (Table 2). Utilization of eye care services in this study significantly increased with increasing age, $p < 0.001$. Among the age group 18-35 years, 48 (24.5%) utilized eye care services, 61 (43.9%) of those within the age group 36 – 53 years utilized eye care services and majority 43 (66.2%) of adults 54 years and above utilized eye care services.

Result also revealed that 85 (40.9%) of the males utilized eye care services while 67(34%) of the females utilized eye care services. This difference however was not statistically significant ($p = 0.10$) (Table 3).

The barriers to accessing eye care services by gender is shown in Table 4. Majority of the respondents 153(38.3%) do not access eye care services because they perceived no felt need to seek help and majority of them were females. Other identified barriers were perceived high cost of services, non-availability of eye care services, lack of money and long waiting time (Table 4; Table 5)

Discussion

Majority of the respondents were female, younger adults, traders and civil servants, with secondary and tertiary education and married. Eye care services were not available to 52% of the respondents while about 25% were not aware of the need for regular eye checks.

In the utilization of eye care services, more males accessed eye care services than their female counterparts especially those in the age group of 54 years and above. Further, our findings established significant relationship between utilisation of eye care services and increasing age. This finding supports a similar study by Olusanya et al¹³, in 2016 who found increasing age and male gender influenced the utilization of eye care services. A study carried out by Ebeigbe and Ovenseri-Ogbomo⁹ in Edo State, Nigeria also found that utilisation of eye care services increased with increasing age. The possible explanation for this result is that the prevalence of eye disorder increases with age and as such they elderly are more likely to have reason to visit eye care facility for treatment.

In this study, only 38% of respondents utilized eye care services while majority of those who did not, resorted to other means of care like traditional method of treatment. This result when compared to a study carried out in

9. Ebeigbe J, Ovenseri-Ogbomo G. Barriers to utilization of eye care services in rural communities in Edo State, Nigeria. *Borno Medical Journal*.2014;11(2):98 -104
13. Olusanya BA., Ashaye AO, Owoaje ET, Baiyeroju AM, Ajayi BG. Determinants of Utilization of Eye Care Services in a Rural Adult Population of a Developing Country. *Middle East African Journal of Ophthalmology*.2016; 23(1):96–103. <http://doi.org/10.4103/0974-9233.164621>

the south western Nigeria¹² is higher, it is also higher than the result of the Cross River State Study¹⁰. This underscores the need to create more awareness in the Northern part of the country. It is however in agreement with some similar studies within and outside the country^{8,9,14}.

Barriers to accessing eye care services were expounded, among the reason given for not going for eye check was individuals' belief that 'there was no need for it'. This counts strongest and accounts for more than 25% across all the dimensions of sex, age group, education and occupation. Next was respondent feeling that eye care services will be expensive, which accounts for at least 10% in all the dimensions. Although 'none availability' also lent its weight amongst the reasons, others including no money to do so and reluctant about it account close to nothing. This result is in agreement with findings from other similar studies^{6,7,8,15,16}.

A closer look at 'feel it will be expensive', shows an interesting trend between age group and education. The feeling of eye care services being expensive increased by age group, the situation is reversed when considering the educational background of individuals. Respondents with higher educational background complained least of eye care being expensive while those with little or no education complained most of eye care services being expensive. It was observed that a greater percentage of individuals seek other sources of eye care rather than available standard eye clinics because they reported the services were cheaper. Studies^{6,16,17,18} within and outside the country agree with the findings of this study.

Conclusion

Although more respondents were aware of the need for regular eye check, the utilization was low. The study has identified no felt need as the major reason why people in Bwari area council do not access eye care services. Cost was also a factor. The other reason why individuals were not accessing eye care services was the non-availability of eye clinics/centres.

More effort needs to be made to get more people utilizing the eye clinic/centres. These include awareness and health education campaign on the need for regular eye check-up. Development of strategies for accessible and affordable eye care services.

6. Nirmalan PK, Katz J, Robin AL, et al. Utilisation of eye care services in rural south India: the Aravind Comprehensive Eye Survey. *The British Journal of Ophthalmology*. 2004;88(10):1237-1241. doi:10.1136/bjo.2004.042606.
7. Ekpenyong BN, Ikpeme BM. Uptake of Eye care Services in University of Calabar Teaching Hospital, Cross River State, Nigeria. *Nigeria Journal of the Nigerian Optometric Association*. JNOA.2009;15(1)24-27
8. Ocansay S, Kumi-Kyereme A, Awusambo-Asare K, Iiechie AA, Boadi-Kusi S, Abraham CH. utilization of eye care services among Ghanaian Elderly Population: Evidence from a peri-urban community. *Ophthalmology Research: An international Journal*. 2013; 1(2):89-101.
9. Ebeigbe J, Oveneri-Ogbomo G. Barriers to utilization of eye care services in rural communities in Edo State, Nigeria. *Borno Medical Journal*.2014;11(2):98 -104
10. Ndep AO, Ekpenyong BN, Okareh O, Peter A, Ezenwankwo A, Ayuk FN. Eye care seeking behaviour of Patients in rural Cross River State, Nigeria. *Research on Humanities and Social Sciences*. 2017;7(2):11-15
12. Lwanga, S. k, & Lemeshow, S. (1991). Sample size determination in health studies: A practical manual. *World Health Organization Bulletin*, 1 – 80.
14. Kovai V, Sannapaneni K, Ramaswany SB, Ravi T, Roa GN. Barriers to accessing eye care services among visually impaired population in rural Andhra Pradesh, South India. *India J. Ophthalmol*. 2007; (5): 365-371.
15. Ntsoane MD, Octunten OA. A review of Factors influencing the utilization of eye care services, *avehjournal*.2010;69(4):182 -192
16. Kimani K, Karimurio J, Gichuhis SM, Nyaga G, Wachira j, Ijako D. Barriers to utilisation of eye care services in Kibera and Dagoreti Kenya. *Journal of Ophthalmology of Eastern, Central and Southern Africa*.2008;14(2):55 -6
17. Ndegwa LK, Karinurio J, Okelo RO, Adala HS. Barriers to utilization of eye care services in Kibera slums of Nairobi; *East African medical Journal*.2005;82(10):506-8
18. Patel D, Baker H, Murdoch I. Barriers to uptake of eye care services by the Indian population living in Ealing, West London. *Health Education Journal*.2006;65(3):267-276

Table 1
Socio-demographic characteristic of respondents

Characteristics	Frequency (n = 400)	Percentage (%)
Sex		
Male	208	52.0
Female	192	48.0
Age (in years)		
18 – 35	196	49.0
36 – 53	139	34.75
54+	65	16.25
Occupation		
Trading	135	33.75
Civil Service	121	30.25
Farming	51	12.75
Artisans	28	7.00
Teacher	22	5.50
Student	19	4.75
Housewife	12	3.00
Unemployed	7	1.75
Lawyer	2	0.50
Retired	1	0.25
Highest Education		
No formal Education	36	9.00
Primary	58	14.50
Secondary	191	47.75
Tertiary	115	28.75
Marital Status		
Married		
Single	259	64.75
Widow	124	31.00
Widower	7	1.75
Divorced/Separated	6	1.50
	4	1.00

Table 2
Awareness of the need for regular eye check and availability of eye care services

Characteristics	Frequency (n = 400)	Percentage (%)
Awareness of need for regular eye check		
Aware of the need	299	74.75
Not aware of the need	101	25.25
Availability of eye care services		
No Presence of eye Clinics	208	52.0
Yes there are eye clinics	187	46.75
No Idea	5	1.25

Table 3
Utilization of eye care services by age and sex

Variables	Use n (%)	Non Use n (%)	Total n=400 (%)	Chi-square Value	df	p-value
Age						
18 - 35	48 (24.5)	148 (75.5)	196 (100)	39.1	2	<0.001
36 – 53	61 (43.9)	78 (56.1)	139 (100)			
54+	43 (66.2)	22 (33.8)	65 (100)			
Total	152 (38.0)	248 (62.0)	400 (100)			
Sex						
Male	85 (40.9)	123 (59.1)	208 (100)	1.52	1	0.10
Female	67 (34.9)	125 (65.1)	192 (100)			
Total	152 (38.0)	248 (62.0)	400 (100)			

Analysis based on Chi – square

Table 4
Barriers to accessing eye care services by gender

Barriers	Male (%)	Female (%)	Total (%)
No need for it	74 (35.6)	79 (41.1)	153 (38.3)
Feel it will be expensive	20 (9.6)	22 (11.6)	42 (10.5)
No eye clinic available	16 (7.7)	17 (8.8)	33 (8.3)
No money to do so	0 (0.0)	1 (0.5)	1 (0.3)
Reluctant about it	1 (0.5)	0 (0.0)	1 (0.3)
Waiting time too long	0 (0.0)	1 (0.5)	1 (0.3)
Not indicated	97 (46.6)	72 (37.5)	169 (42.3)
Total	208 (100.0)	192 (100.0)	400 (100.0)

Table 5
Percentage distribution of barriers to accessing eye care services in Bwari area council of the FCT by sex, age group, education and occupation

REASONS FOR NOT ACCESSING EYE CLINICS		FEEL IT WILL BE EXPENSIVE	NO MONEY TO DO SO	NO NEED FOR IT	NONE AVAILABLE	WAITING TIME TOO LONG	ALL %
Sex	Male	23.4	0	64.8	11.8	0	100
	Female	16.3	6	65.5	12.2	0.5	100
AGE GROUP	18-35	14.6	0	72.4	12.4	0.6	100
	36-53	23.5	1.5	58.8	16.2	0	100
	54+	52.6	0	36.9	10.5	0	100
EDUCATION	None	39.1	0	52.2	8.7	0	100
	Primary	26.4	2.6	60.5	10.5	0	100
	Secondary	19.5	0	69.7	10.8	0	100
	Tertiary	11.6	0	69.2	19.2	0	100
OCCUPATION	Artisan	33.3	0	58.3	8.4	0	100
	Civil servant	0	0	78.9	21.1	0	100
	Driving	100	0	0	0	0	100
	Farming	36.4	0	60.6	3.0	0	100
	Housewife	0	12.5	50	37.5	0	100
	Retired	0	100	0	0	0	100
	Student	5.9	0	76.5	17.6	0	100
	Teaching	18.2	0	54.5	27.3	0	100
	Trading	18.1	0	68.7	13.3	0	100
	Unemployed	100	0	0	0	0	100