Original Article

Eye Health-seeking Behaviour of Traders in Rural Nigeria

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Abstract

Aim: The aim of this article was to determine the healthcare provider first sought, reasons for the choice, and symptom duration before hospital presentation among traders in rural Nigeria. **Materials and Methods:** This was a cross-sectional study of traders at a rural Nigerian market, selected by systematic random sampling. A structured questionnaire was used to obtain information on sociodemographics, eye disease symptoms, eye care provider first sought, and reasons for choice. The analysis was carried out with Statistical Package for Social Sciences using descriptive and inferential statistics with an alpha level at 0.05. **Results:** Of the 177 traders, 88 (49.7%) were males and 89 (50.3%) were females. The mean age was 46.5 ± 13.75 years (range 19–72). Of the 83 traders who had ocular symptoms 23 (27.7%) never sought any care. The eye care providers first sought were patent medicine vendors 22 (26.5%), orthodox hospital 17 (20.5%), eye glass vendors 3 (3.6%), and traditional healers 3 (3.6%). The median symptom duration before presentation to an eye health facility was 83 days. Reasons for not seeking orthodox eye care first included cost 33 (39.8%), 'ailment not serious' 22 (26.5%), and advice from friends 7 (8.4%). Females were more likely to seek orthodox care (χ^2=4.22, P=0.04), whereas males were more likely to feel that their ailment was not serious. Traders aged >50 years were less likely to seek any care for eye ailment (χ^2 =8.41, P=0.04). **Conclusion:** Traders with eye disorders seek care late and most first seek care outside the orthodox hospital. Cost and feeling that ailment was not serious are barriers to seeking orthodox eye care. Eye health education and cost reduction would improve uptake of orthodox eye care services.

Keywords: *Eye health-seeking behaviour, Nigeria, source of eye care, traders*

Introduction

Health-seeking behaviour is a problem-focussed, planned behaviour, involving interaction between the ill person and a selected healthcare professional.[1] It involves decisions and events that start with identification of a deviation from what the individual considers good health and culminates in reception of help for the illness. Health-seeking is composed of symptom definition, illness-related shifts in role behaviour, lay consultation and referral, treatment actions, and adherence.[2]

Achievement and maintenance of good eye health involve several factors, including the input of the individual and other stakeholders. These can be attained by the individual identifying his/her need for eye care, obtaining appropriate information or advice and finally consulting with eye care provider(s). Delay in receiving requisite care may result in serious ocular consequences including blindness, with its attendant psychological, socio-economic, and physical problems. Information on the eye health-seeking behaviour of members of a community is invaluable for planning, implementation, and coordination of eye care services based on the peculiarities of that community and therefore important to eye care providers, health planners, and policy makers.

Traders constitute an economically productive segment of the population. They contribute immensely to the growth and development of any society. The marketplace is a meeting point for many people in a community. It could be an important arena for transmission of information including information concerning eye health and health in general. Such information may influence the health-seeking behaviour of people within a community.

In Enugu State, Nigeria, most of the functional eye care facilities and ophthalmic health personnel are located in the urban areas, thereby tilting the balance of proximity and access to eye care against rural dwellers[3] who may resort to traditional (alternative) medicine. In Ghana, people living in communities with poor or inaccessible eye care facilities were more likely to seek alternatives to orthodox eye care services including self-medication, traditional healers, itinerant couchers, and

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patent medicine vendors (PMVs), some of which may be harmful.[4] Poor eye health-seeking behaviour has been identified in some studies done in Nigeria,[5-9] including delays in seeking orthodox eye care or not seeking orthodox eye care at all.

The present study was aimed at determining the type of eye care provider first sought by individuals with eye problems, the reasons for choice of eye care as well as the time interval between the onset of ocular symptoms and presentation to an orthodox eye health facility among traders in a rural community in Nigeria.

Materials and Methods

This study was conducted in accordance with provisions of the Declaration of Helsinki on research involving human subjects.[10] Ethical approval was obtained from the Ethics Committee of the local institution. Permission was also obtained from the leadership of the traders' union. Written informed consent was obtained from each participant.

This was a cross-sectional study conducted between September and December 2017 among market traders in Orie-Agu market, Nenwe, a rural community in Enugu State, Nigeria.

Adult traders aged 18 years and older who were duly registered with the Orie-Agu Market union and had been transacting business in the market for at least 6 months prior to the study and who were willing to give consent for participating in the study were included in the study. Exclusion criteria included traders under 18 years of age, unregistered traders, traders who had been trading in the market for less than 6 months, and those who withheld consent for the study.

The sample size was calculated using the Leslie–Kish formula for a cross-sectional study for a population less than 10,000.[11] The registered traders in the market numbered 307. This gave a minimum sample size of 177. Participants were selected by the systematic random sampling technique. Equal proportions of male and female traders were recruited for the study; hence, 88 male and 89 female traders were selected for the study. Using the traders' association register, separate lists were drawn up of male and female traders containing 151 and 156, respectively. Given this minimum sample size of 88 male and 89 female traders and a total population of 151 males and 156 females, respectively, the interval for selection of traders by the systematic random sampling technique was 2 for both male and female traders. The first participant (starting point) in systematic random sampling is determined by randomly selecting a whole number between 1 and the sampling interval (sampling interval is 2 in our study). The first participant was thus randomly selected between numbers 1 and 2. This was done by writing number 1 on a piece of paper and number 2 on another piece of paper, both of which were folded and placed in a bag. Another researcher randomly picked one of the papers and the participant whose number on the list corresponds to the selected number was the starting point. The subsequent participants were selected in multiples of number 2 until the desired sample size was achieved for both male and female traders. The next participant is determined by adding 2 (the sampling interval) to the non-consenting participant's assigned number and selecting the participant whose number corresponds to the number obtained.

An interviewer-administered pre-tested structured questionnaire was used by the trained interviewers to obtain information on sociodemographics, symptom of eye disease in the previous 6 months, type of ocular complaint(s), type of health care provider consulted, duration between the onset of problem and presentation to an eye care provider, and reasons for choice of an eye care provider.

Data obtained were analysed with Statistical Package for Social Sciences (SPSS) version 23 (SPSS Inc., Chicago, IL, USA). Descriptive statistics such as frequencies, percentages, and means were given. Comparisons between means were done with the analysis of variance (ANOVA) test; the χ^2 test (including Fisher's exact test, where applicable) was used to test the association among categorical variables at an alpha level of 0.05.

In this study, orthodox eye health facility refers to the care received within the regular eye care system (hospitals and clinics).[4]

Results

A total of 177 traders, including 88 (49.7%) males and 89 (50.3%) females, were studied. Table 1 shows the sociodemographic characteristics of the participants. The age range was 19–72 years, with a mean age of 46.5 ± 13.8 years.

Eighty-three (46.9%) participants complained of at least one ocular symptom, whereas 94 (53.1%) had no ocular symptoms in the preceding 6 months. Of the 83 with ocular complaints, 57 (68.6%) had multiple symptoms. The common symptoms were visual blur, 52 (62.7%), and ocular itching, 46 (55.4%). Table 2 shows participants' ocular symptoms.

Table 1: Sociodemographic characteristics of the participants

Characteristic	No. (%)
Gender	
Male	88 (49.7)
Female	89 (50.3)
Total	177 (100.0)
Age	
≤20	3 (1.7)
21–30	22 (12.4)
31–40	41 (23.2)
41–50	44 (24.9)
51–60	36 (20.3)
>60	31 (17.5)
Total	177 (100.0)
Educational attainment	
Non-formal	26 (14.7)
Primary	73 (41.2)
Secondary	65 (36.7)
Post-secondary	13 (7.4)
Total	177 (100.0)

Table 2: Ocular symptoms among 83 traders with eye complaints

Symptoms	No.	%*
Visual blur	52	62.7
Itching	49	59.0
Tearing	35	42.2
Redness	29	34.9
Discharge	22	26.5
Pain	13	15.7
Aversion to light	9	10.8
Swollen eyelids	7	8.4
Growth on the eye	3	3.6

*Some participants had more than one symptom, % based on 83 traders

Table 3: Type of eye care provider first sought for ocular symptoms

Type of ocular eye care first sought	No.	%*
Patent medicine vendors	22	26.5
Self-medication	22	26.5
Orthodox eye health facility	17	20.5
Traditional healer	3	3.6
Itinerant eyeglass vendors	3	3.6

*Some participants had multiple symptoms which occurred at different times within the preceding 6-month period for which they were interviewed. Some of these participants sought care first from different sources of care at different times in the 6-month period for the different symptoms they had

In Table 3, the type of health care facility first consulted for eye care is shown. Of the 83 participants with ocular symptoms, 23 (27.7%) did not seek any health care and 17 (20.5%) utilized orthodox eye health facility. For some traders who had multiple symptoms occurring at different times in the previous 6 months, they first consulted different sources of care at different times for the different complaints they had within that preceding 6 month period (for which they were interviewed).

Females [13 (15.7%)] were more likely to patronize orthodox health facility than males [4 (4.8%)] (χ^2=4.22, P=0.04). No statistically significant association was found between age and patronage of orthodox eye care ($P > 0.05$). However, participants older than 50 years were less likely to seek any form of care for their eye symptoms (χ^2 =b8.41; P =b0.04). No statistically significant association was found between educational attainment and seeking orthodox care for eye symptoms ($P > 0.05$). Traders with post-secondary education were more likely to patronize itinerant eye glass vendors than those with lower educational attainment (χ^2 =16.24; P= 0.022).

The median symptom duration before seeking orthodox eye care for all ocular symptoms was 83 (70.5 IQR) days. The duration ranged from 4 days to 5 months. Patients with eye pain were more likely to seek care early compared with non-painful visual loss (ANOVA f-value =106.007; P =0.001).

The most common reason for not seeking eye care first at an orthodox health facility was cost 33 (39.8%), followed by

Table 4: Reasons for not first consulting orthodox health facility

Reasons	No.	%*
Cost	33	39.8
Ailment not serious	25	30.1
Friend's advice	7	8.4
Distrusts orthodox care	4	4.8
Long distance	2	2.4

*Some participants gave more than one answer, % based on 83 participants

'ailment not serious' 25 (30.1%) [Table 4]. The only reason found to have a statistically significant association with gender was 'ailment not serious' (χ^2 =10.177; P=0.001). More males [16 (19.3%)] than females [6 (7.2%)] who did not seek orthodox eye care thought that the ailment was not serious. No statistically significant association was found between age and the reasons for not seeking orthodox eye care first ($P > 0.05$). Among those who did not seek any care for their symptom, the common reasons were 'ailment not serious' 11 (13.3%) and 'cost' 7 (8.4%).

Discussion

The results of this study suggest a low patronage of orthodox eye care services by traders in rural Enugu State, Nigeria. This is in spite of the fact that a rural outpost of an Ophthalmology Department is located in a central accessible location within the community. This eye clinic runs outpatient services three times a week, and emergencies are attended to daily; also refractive and minor surgical services are rendered. Participants were not specifically asked about awareness and utilisation of the rural outpost. This study found that many did not consider the seriousness of their problems. Lack of trust in orthodox health care services found in the present study could also account for this. It may also be related to bureaucratic bottleneck or negative attitude of some health workers.[12]

The high proportion of those who did nothing for their eye symptoms as well as those who resorted to self-medication, coupled with the finding that many did not seek orthodox eye care because they felt that their ailment was not serious, is worrisome. This is because it could result in delayed consultation for eye care and institution of appropriate management, all of which could result in increased ocular morbidity.

Similar to the present study, patronage of PMVs was also the most common route of eye care identified in other studies in Kwara[13] and Anambra States,[14] Nigeria. In contrast, self-medication was used by most people in Sokoto, Nigeria.[15] These findings are not unexpected as patent medicine stores are ubiquitous, especially in rural communities where they offer relatively cheap and quick services and may be the only primary care providers in some places. On the contrary, orthodox health facility was the most frequently sought type of eye care reported in studies in the UK[16] and Ghana.[4,17] This may be because of the better awareness and the existence of functional

health insurance system in both countries. Health insurance mitigates the catastrophic effect of unexpected out-of-pocket expenditure by patients and their relatives. A possible reason may be because our study was conducted among traders who earn money, unlike in the other studies in which the general population was studied.[13,18,19] This may be because our study was conducted among traders who earn money, unlike in the other studies in which the general population was studied.

Usually, men are more likely to be employed and to have more economic power. It could also be related to the socio-cultural organization of the Igbo society, in which the study was conducted, that gives women freedom to openly and independently engage in economically productive ventures. Similar findings were reported in Tehran, Iran[20] and Abagana, Nigeria.[21] This is contrary to the finding in Oyo State, Nigeria,[22] in which male gender was associated with utilization of orthodox eye care facility.

In the present study, males tended not to seek care first at orthodox health facility due to perception of the eye problem as not being serious. It could also be related to other social, economic, and cultural reasons. A tendency not to seek any eye care found among older individuals could be related to the perception that eye problem is a part of the old age.[23] It could also be due to demand on income by other comorbidities and socio-economic factors. This finding, if not addressed, could result in increasing blindness because the incidence of blinding eye diseases is known to increase with increasing age.[24] This can be addressed through health education and cost-reduction measures. The delay in seeking treatment by those with ocular complaints may lead to the development of complications and poor visual outcomes. This points to the need for reorientation of the traders on the importance of early presentation for care of eye problems. Our finding was similar to that reported in Bangladesh,[18] but different from the experience in Kwara State, Nigeria,[13] where about two-thirds of the participants sought care within 1 month of onset of symptoms. This difference could be because in our study information about ocular complaint was collected for the preceding 6 months, whereas for the Kwara study it was collected for the preceding 1 month only.

Cost was the most common reason given in this study by the traders for not seeking eye care at orthodox facilities. This differed from other studies,[13,18,19,25] in which 'ailment not serious' was the most common reason given, followed by cost. Cost as the most common reason for not seeking care, even in an economically productive population, may be due to the relatively lower cost of alternative care. This points to the need for seeking ways of reducing cost of care in orthodox health care including expanding health insurance for a wider population coverage. Cost and 'not a serious problem' were similarly identified as the most important reasons for not seeking eye care in studies in Abagana, Nigeria,[21] Ghana,[17] and India.[26] 'Advice from friends' as a reason for not seeking care underscores the importance of appropriate community orientation on good eye health practices to ensure that appropriate eye health-related advice is shared between individuals in the community.

In conclusion, patronage of orthodox eye care facility among the traders was low with many resorting to other alternative sources of eye care as first point of care. The vital role in healthcare delivery of PMVs and traditional healers, especially in underserved communities, should be recognized and adequately accommodated. It is important that these providers are given health education that will ensure safety in their practice such as improved sterilization and disinfection and avoidance of use of prescription drugs such as steroids as well as having their practice regulated to ensure delivery of good eye care within the community. Measures targeted at increasing utilization of eye care services such as reorientation about eye diseases and awareness creation through health education as well as cost-reduction measures such as health insurance are recommended.

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Conflicts of interest

There are no conflicts of interest.

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