

Beliefs and Attitude to Eye Disease and Blindness in Rural Anambra State Nigeria

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SUMMARY

Objectives: To determine (a) the beliefs and knowledge of the eye diseases/blindness; (b) the actions taken to alleviate eye diseases/blindness; (c) the disposition towards optical aids and eye surgery among adults in rural Anambra State, Nigeria

Materials and Methods: Three villages in the onchocercal endemic area of Anambra states were randomly selected for ophthalmic surgery. The study instruments included using interviewer administered pre-tested structured questionnaire to obtain from all persons aged 20 and above, information on beliefs, knowledge and attitude to eye diseases/blindness, eyeglasses and eye surgery.

Results: The 954 persons interviewed thought eye diseases/blindness were caused by filariasis, germs, enemy poison, heredity, entering bad bush, evil spirit and swearing to false oath. Selfmedication was common but ophthalmologist, chemists, general practitioners, opticians, nurses and herbalists were also consulted. Unorthodox ocular preparations in common use were holy water, sugar solution, salt solution and herbs.

Most respondents (94.6%) would advise a relation with eye disease/blindness to go to hospital and kinsmen were likely to contribute to treat the blind (93.3%) and exclude him from tax and levies (58.7%). But recommending herbs, consulting herbalists and or seer and offering sacrifice to the gods were other options. While 830 (87.0%) persons would accept eyeglasses, only 570 (59.7%) would submit to eye surgery if necessary, 176 (18.4%) persons saw eye surgery as frightening and 82 (8.6%) viewed it as useless.

Conclusion: While the views and attitude of most respondents agree with modern scientific knowledge and approach to ophthalmic problems, a good proportion had negative attitude. The supportive role of kinsmen and close relation of the ophthalmic patient is conspicuous. These findings deserve serious consideration when planning eye health services for these and similar communities.

KEY WORDS: *Beliefs; attitude; eye disease; blindness; Nigeria.*

INTRODUCTION

Studies from different parts of Nigeria establish that eye diseases and blindness constitute significant health problem¹⁻⁷. Also highlighted are the lack of trained manpower^{8,9} and the inadequacy of modern ophthalmic facilities¹⁰. Currently there is an average ratio of one ophthalmologist to 800,000 Nigerians but because the distribution is skewed in favour of the cities the real ratio in some rural areas may be up to one ophthalmologist to 4-5million people¹¹

The treatment approach for ocular disorders using modern technology is often alien to the people and in some

cases may not be acceptable. It is certain that the people have their peculiar beliefs about the causation of diseases. In the face of lack of trained personnel, inadequate modern infrastructure and a suspicion for some of the treatment strategies and techniques, it is conceivable that the people may have developed some methods of treating eye diseases and coping with blindness.

This communication describes some of the beliefs about the causes of eye diseases and blindness; the remedies usually resorted to; and disposition towards modern optical aids and eye surgery, by rural dwellers in Anambra State, Nigeria.

MATERIALS AND METHODS

A rural village was selected for ophthalmic surgery from each of the three senatorial zones of Anambra State as follows: All local government areas (LGA) in each zone were listed. From this list a LGA was selected by simple random sampling as described by Lutz¹². Next, the towns in each of the selected LGA were listed and a town selected by simple random sampling. Finally, from the list of the villages in each of the selected towns a village was selected by simple random sampling in this way, 3 villages namely Uhuori Ukor, Nnewi South LGA; Ezinkwo Ndikelionwn Orumba North LGA; and Oze Nkwell-Ezunaka Oyi LGA were selected for the study. Each selected village was endemic for onchocerciasis. Based on the blindness prevalence of 0.9%³ a minimum sample size of 1371 was calculated with a 95% confidence interval.

The study was conducted between May and October 1995, although the author made preliminary visits to the selected villages 6 - 9 months earlier. During these visits *de facto* leaders in each selected village were met and the aims and objectives of the study explained to them. Their help was sought in mobilizing the villagers with minimal disruption of the village routine. These leaders selected the examination venue and decided on the period of the year most convenient for the study.

The study was designed to examine only normal residents of each of the villages. In this study, a normal resident was defined as a person who had resided continuously in the village for at least 6 months preceding the study. In conducting the study, periods of religious and cultural festivals such as Christmas, Easter, New Yam festivals and the Annual Women meeting in the month of August were avoided as the villages usually witnessed population increase during these periods. The study team comprised an ophthalmologist, a medical laboratory technologist and 3 health workers trained as interviewers.

The study instrument included administering a pre-tested structured questionnaire. In developing the questionnaire on beliefs and attitude to eye disease and blindness, two focus discussion groups were convened by the author. One of the focus discussion groups consisted of 7 rural dwellers randomly selected from Nnewi. The second group comprised 8 health workers of Igbo origin randomly selected from the Nnamdi Azikwe University Teaching Hospital Nnwei. These included doctors, nurses, and technicians. The opinion of the participants in these discussion groups were used in formulating and modifying the questions. The questions were tested on Igbo patients and those accompanying them to the Guinness Eye Center Onitsha and relevant modifications made. During the field work, trained health workers administered questionnaire to each subject aged 20 years and above, by face-to-face interview in *Igbo* language. Information were obtained on vital statistics, belief,

knowledge and attitude to eye diseases and blindness; acceptability of eyeglass as well as perception and acceptability of eye surgery. The study coincided with the community distribution of ivermectin. Our sample was representative of the population as ascertained from the ivermectin distribution register.

RESULTS

During the survey, a total of 1440 persons were examined but all adult participants aged 20 years and above, and numbering 954, were further interviewed on beliefs, knowledge and attitude to eye diseases and blindness. Of the 954 persons, 384 (40.3%) were male and 570 (59.7%) were female (M:F=1:2) 488 (51.2%) were aged less than 50 years and 466 (48.8%) were 50 or more years old 170 men and 318 women were less than 50 years old while 384 men and 252 women were aged 50 years or more. The male to female ratio is the same for the 1440 subjects examined. This part of Nigeria is still witnessing rural-urban migration. Young men often flock the cities in search of better opportunities and usually during festivities visit their wives and children in the village. This explains why fewer men were aged less than 50 while among those aged 50 years or more, men outnumbered women.

Formal educational attainment was as follows: Illiterate-234 (34.0%); Primary school-346 (36.4%); Secondary school-170 (17.8%); Post-secondary-114 (12.0%). Thus only 29.8% of these participants had more than primary school formal education.

Table 1: Ideas of causes of eyes disease/ blindness

Cause	No.	% *
Filariasis	786	80.5
Germs	414	43.4
Enemy poison	348	36.5
Inherited	322	33.8
Entering evil forest	222	23.3
Swearing to false oath	162	17.0
Evil spirit	154	16.1
Not sure	50	5.2

*Based on 954 respondents

Table1 shows the people's belief about the causes of eye disease and blindness.

Filariasis, germs enemy poison and heredity were regarded as important causes. While 94.5% of the respondents would advise or take a blind relation to the hospital, consulting native (herbal) doctors. Recommending herbs, offering sacrifice to the gods and consulting future-tellers (seer) were other options.

Table 2: kinsmen attitude to a blind man

Attitude	No.	%*
Contribute to treat	890	93.3
Exclude from tax	560	58.7
Consult a seer	18	1.9
Give feed items	4	0.4
Take away property	4	0.4

* Based on 954 respondents

As shown in Table 2, kinsmen would most likely contribute to treat a blind relation (93.3%) and also exclude the blind from tax and levies (58.7%) but on the negative side, a few (0.4%) would also take away the property of the afflicted. In practice more than one option may be applied to a given situation. A person thought to have acquired eye disease through false oath taking is unlikely to attract the sympathy of kinsmen. This view, held by 6 out of 7 rural dwellers during the focus group discussion, was also expressed by some elders during the study. Eight hundred and fourteen respondents (85.3%) previously had cause for ophthalmic consultation and therapy. Among these, self-medication was common although ophthalmologists, chemists (patent medicine dealers), general practitioners, opticians, nurses and herbalists were also consulted for eye problems.

Table 3: Health Worker usually consulted for eye problems

Health Worker	No.	%*
Self-medication	286	35.1
Ophthalmologist	246	30.2
Chemist	190	23.3
General Practitioner	72	8.9
Optician	38	4.7
Nurse	12	1.5
Herbalist	12	1.5

* Based on 814 respondents.

Most of those who consulted the ophthalmologist did so when remedy from other health workers failed to yield the desired result. Five hundred and four respondents (52.8%) had used unorthodox eye medications. Table 4 shows that unorthodox eye medications in common use were holy water, sugar solution, salt solution, and herbs.

Table 4: Unorthodox eye medications in use

Medication	No.	%*
Holy water	228	45.2
Sugar solution	212	42.1
Salt solution	70	13.9
Herbs	68	13.9
Cassava water	20	4.0
Petrol / Kerosene	20	4.0
Human urine	8	1.6
Tobacco powder (snuff)	4	0.8

*Based on 504 respondent

Table 5: Perception of eye surgery

Perception	No	%
Useful	586	61.4
Frightening	176	18.4
Useless	82	8.6
Useful but frightening	52	5.5
Not sure	58	6.1
Total	954	100.0

Table 5 shows the respondents' perception of eye surgery. While 61.4% felt that eye surgery was useful, it was frightening to 18.4% and 6.8% viewed it as useless. Only 570 (59.7%) respondents would submit to eye surgery if their condition warrants it. Further inquiry revealed that financial or religious considerations were not the reasons for rejecting eye surgery. Rather the feeling that ocular surgery is frightening and the observation that surgery did not alleviate the problems of some of their friends and relations were the main reasons for the negative attitude. Eyeglass was acceptable to 830 (87%) respondents although half of these complained about the cost of spectacles. The 13% that rejected eyeglass did so because they would not cope with it while working in the farm. Every adult in these villages is involved in subsistent farming as part-time or full-time occupation.

DISCUSSION

Cultural, social economic, religious and personal experiences are factors that influence the attitude of people to ill-health. The results of this study suggest that idea of the causes of eye disease and blindness espoused by the majority of the people agree with the modern scientific view of the aetiology of eye diseases. However, the belief that eye diseases and blindness are caused by the evil machinations of men and supernatural forces is also

common among the people. This *juju* concept of diseases as documented in the present study concurs with the findings of previous studies in Nigeria^{13,14}. The present study also found that many respondents harbour negative attitude especially with regard to treatment modalities based on fright and the unpleasant experiences of neighbours. Fear of surgery was one of the factors that kept the cataract blind away from surgery in Nepal¹⁵.

It is not surprising that more than 80,0% of the participants believed that filariasis was a cause of eye disease and blindness since this study was conducted in onchocercal endemic communities and the people actually have local names for both the parasite and vector of onchocerciasis. The belief in filariasis, bacteria (germs), and heredity as causes of eye diseases and blindness is in line with the scientific view, and every opportunity must be seized to strengthen these views and encourage ways of preventing diseases from them.

Other views on eye disease aetiology such as enemy poison, swearing to false oath, *etc* (Table 1) in reality assume great significance among the people especially with regard to treatment. For instance, during the survey the author had arranged for a man blind with bilateral cataract to have surgery in our base hospital. That evening a delegation of 3 men from the village came to the field camp to warn the author not to get further involved with treating the blind man. According to them, the man had sworn to false oath and his predicament was a punishment from *ani*, the earth goddess. Since the man had not performed the necessary rites to appease the goddess. Thus although they would have ordinarily contributed to treat this kinsman of theirs, they had avoided doing so in deferences to the goddess. It is noteworthy that this view was similar to that expressed by 6 out of 7 rural dwellers during the focus group discussion.

The supportive roles of immediate relatives and kinsmen are positive and commendable. But this is not surprising. This part of Nigeria is known for communal and self-help approach in providing social amenities. They contribute to build schools, roads, bridges, markets, hospitals and town halls. Among them illness and death are of communal concern. But in spite of the above, the influence of traditional religious beliefs still makes them (in periods of crisis) to consult seers and offer sacrifices to the gods. Occasionally, some will try to settle old scores by taking away the property of the handicapped. In practice these negative tendencies may have profound adverse effects on new measures, such as blindness prevention activities, being introduced into the villages.

Therefore while the obviously positive attitude should be encouraged, a lot more effect is required to re-orient and dissuade the people against prejudices and negative attitude to modern eye care strategy.

Although up to a third of participants who needed ophthalmic consultation had consulted an ophthalmologist, most of those involved did so as a last resort. This is to be expected. At the time of the study the nearest ophthalmologist's clinic to any of the villages studied was more than two hours' ride through poorly maintained dirt roads. Although primary health care centers were accessible primary eye care was virtually non-existent as there were no trained personnel⁹. Thus in these villages, self-medication is rife for all types of ailment and consultation with trained health personnel is only when self-medication fails. Native (herbal) doctors hold religious prayer sessions to bless water (holy water) and give to adherents whom they also convince of the water's medicinal value. These explain the common use of unorthodox eye preparation by the people.

Cataract and glaucoma are the two commonest causes of blindness and visual impairment in Anambra State⁴. Surgical intervention is recommended for vision restoration or prevention of visual loss in these conditions. But the low rating the people have for eye surgery is reflected in the findings in this study that 40.3% would not submit to eye surgery and 18.4% and 8.6% viewed eye surgery as frightening and useless respectively. A recent study in Ibadan showed that only 18% of glaucoma patients would accept surgery as a treatment option¹⁶. Modern cataract surgery (extra-capsular cataract extraction or phacoemulsification with intraocular lens (IOL) implant) as currently practiced in industrialized countries gives satisfactory visual result¹⁷. In Nigeria intra-capsular cataract surgery is still common and many patients benefit from IOL implant¹⁸. The visual results of intracapsular surgery may not be different from that obtained from couching - a procedure still prevalent in the area which the people do not regard as typical eye surgery. Any effort geared toward improving acceptability of eye surgery must therefore be bi-pronged. Firstly relevant health education is required to improve the people's positive perception of eye surgery. Ideas of eye surgery must be sold in such a way as to make it less frightening to the people. Secondly, result of cataract surgery performed by ophthalmologists must be better than that of couching. Thus, it is urgent that cataract surgeons in Nigeria abandon the intra-capsular technique in favour of at least extra-capsular with IOL implant.

In conclusion, eye health workers have highlighted the magnitude and burden of eye disease and blindness in Nigeria¹⁻⁷. The Nigeria's National Programme on Prevention of Blindness was launched in 1990. Governments and

Non-Governmental Organizations (NGO) were persuaded to support blindness prevention activities especially in under-served areas. These activities will yield the desired results only if they are affordable and acceptable to the people. The findings in the present study deserve serious consideration when planning eye health services for these and similar communities

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