Perception of Blindness and Blinding Eye Conditions in Rural Communities

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Purpose: The purpose of this qualitative study was to explore the causes and management of blindness and blinding eye conditions as perceived by rural dwellers of two Yoruba communities in Oyo State, Nigeria.

Methods: Four focus group discussions were conducted among residents of Iddo and Isale Oyo, two rural Yoruba communities in Oyo State, Nigeria. Participants consisted of sighted, those who were partially or totally blind and community leaders. Ten patent medicine sellers and 12 traditional healers were also interviewed on their perception of the causes and management of blindness in their communities.

Findings: Blindness was perceived as an increasing problem among the communities. Multiple factors were perceived to cause blindness, including germs, onchocerciasis and supernatural forces. Traditional healers believed that blindness could be cured, with many claiming that they had previously cured blindness in the past. However, all agreed that patience was an important requirement for the cure of blindness. The patent medicine sellers' reports were similar to those of the traditional healers. The barriers to use of orthodox medicine were mainly fear, misconception and perceived high costs of care. There was a consensus of opinion among group discussants and informants that there are severe social and economic consequences of blindness, including not been able to see and assess the quality of what the sufferer eats, perpetual sadness, loss of sleep and dependence on other persons for daily activities.

Conclusion: Local beliefs associated with causation, symptoms and management of blindness and blinding eye conditions among rural Yoruba communities identified have provided a bridge for understanding local perspectives and basis for implementing appropriate primary eye care programs.

Key words: blindness ■ traditional care

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INTRODUCTION

Several studies in the southwestern part of Nigeria, where the Yoruba ethnic group are predominant, suggest that blinding eye diseases constitute a significant health problem.[1-3] The majority of health facilities providing eye care services are located in the urban areas, leaving many rural areas underserved. Consequently, blindness affecting people in rural areas with avoidable and treatable eye conditions are largely unattended to while the city facilities are underutilized.[3,4] Whereas blindness in most developing countries is preventable,[5-8] barriers to the usage of eye health services in developing countries are numerous—such as the belief, attitudes and practice of the predominantly rural population.[8-11]

In the absence of modern eye facilities, many citizens living in rural communities rely on alternative sources of care, including traditional healers and patent medicine sellers, who serve as frontline health workers in these areas. Studies show that traditional eye healers play an important role in the management of eye conditions.[10-12] An in-depth understanding of the rural Yoruba people's beliefs on eye disease and their attitude towards the utilization and underutilization of existing health services is a necessary first step in efforts aimed at reducing prevalence of blindness among the people.

As part of efforts to promote healthy eye health habits and to promote eye health services utilization through appropriate health education, we conducted four focus group discussions with rural men and women with and without blinding eye conditions, key informant interviews for traditional healers and patent medicine sellers who were the major provider of eye care services in these two rural Yoruba communities.

This paper presents data from a study that describes the beliefs and attitude of rural dwellers, traditional eye practitioners, patent medicine sellers and community members in two selected villages—Iddo and Isale Oyo, in Oyo State, Nigeria—specifically regarding the causes of blindness, local names

for these diseases and treatment options. It is hoped that knowledge of these shall be used to work with community members to design appropriate health education techniques that will improve eye health service of the population and eye health service utilization by Yoruba rural dwellers.

METHODS

Setting

Iddo is a rural Yoruba community that has a population of approximately 20,000 people. Iddo is located approximately 15 km west of Ibadan, a metropolis of approximately 3 million people and the capital of Oyo State. The inhabitants of Iddo are predominantly subsistence farmers who grow mainly cassava, maize and yam. Like most traditional Yoruba communities in Nigeria, the basic housing unit in Iddo is the traditional extended-family compound, which consists of a man, his wife or wives, children and other relatives. Iddo was selected for this study because it has served for several years as a site for fieldwork program for postgraduate training in the Department of Health Promotion and Education, College of Medicine, University of Ibadan. Isale-Oyo has several sociocultural and economic similarities with Iddo because it is a rural Yoruba community with a population of approximately 25,000 people. It is a ward in the Old Oyo, a historical Yoruba town. The occupation and housing units are similar to those in Iddo. In Isale-Oyo, the State Ministry of Health has a health center, which has provided primary eye care services for citizens of this area for several years.

Data Collection

The study was designed primarily to collect data to understand the social and economic problems being encountered by visually impaired persons and to gauge community perception on blindness with a view to developing appropriate intervention. Qualitative methods, namely focus group discussion and key informant interview, were employed for data collection. Table 1 shows the guide to questions asked. A qualitative approach was preferred to a survey because the former yields data that capture the

Table 1. Community perception about eye conditions

In-Depth Interview/Focus Group Discussion Guide

Introduction

- Greetings! My name is _____. I am from the University College Hospital, Ibadan.
- We thank you because you have agreed to take part in this discussion. We have invited you all to discuss the problems affecting people's eyes in this community.
- We hope that the information we collect during the discussion will help us understand your opinion about these problems and how best to help those affected.
- We'd like to assure you that there are no right or wrong answers during this discussion. We therefore encourage you to express your own opinions.
- We also assure you that we will keep as secret all that you tell us during this discussion. Therefore, we do not need your names.
- We seek your permission to record the discussion on audiotape. We do this to enable us remember all that we talked about during the discussion.
- We shall now start the discussion. Our first question is:

1. Can you please describe the importance of the eye in the human body?
2. Please list all the problems that you know affect the eye.
   Probe for problems affecting eyes among:
   a. children and adolescents b. adult c. elderly
3. Can you please describe the signs and symptoms of each type mentioned?
4. What do you think is the cause of each of this problem?
5. Please describe the local ways of treating these eye problems.
6. What are the things an individual needs to do to prevent any of these problems?
7. a. In your own opinion, which is the worst type of eye problem someone can have?
   b. Why do you think so?

Thank you for answering our questions. We would now like to discuss more specifically about blindness.

1. What are the things that cause someone to lose his/her sight?
2. Please tell us the different types of blindness that you know of.
3. Can you please describe the problems that blind people face?
4. What do you think a person should do to prevent loss of sight?
5. Which category of persons do you think is at risk of losing his/her sights in this community?

perspectives of respondents. Data generated from the former are also more suited than the latter for developing appropriate interventions.

Four focus group discussions were conducted, one each for male and female participants in Iddo and Isale-Oyo. A sample of eight men and women who were either partially or completely blind were purposively selected to participate in the discussions. Separate group sessions were conducted for both male and female participants. These persons were identified through contact and informal discussion with the traditional leader of the community. The names and addresses of each identified person were documented, and they were later contacted and invited to participate in the study. Verbal consent was obtained from each participant by explaining that the discussion was being conducted for research purposes, that discussions would be kept confidential and that participation was voluntary. Each invited person was told about the date, time and venue for the discussion.

The discussions were held inside the hall of the Customary Court in Iddo because of central location of this venue, while a multipurpose hall was the venue of discussions in Isale-Oyo. A guide containing 12 open-ended questions was used to moderate the discussion, which was held in Yoruba, the language widely spoken in both communities. The discussion focused on the participants' perception of their experiences of having visual problems. The focus group discussion was recorded manually and later transcribed. The approximate duration of the discussion was 40 minutes.

As a direct benefit to each participant, the ophthalmologist in the investigating team examined the affected eye of each of the focus group discussion participants. Where required, prescriptions were written for each person. Those whose condition required further attention were referred to the University College Hospital, Ibadan, the institution of the investigators. The key informant interview was a supplementary source of data. Five traditional healers in Iddo and seven in Isale-Oyo involved in care of eye-related problems were identified and interviewed in depth. The healers consisted of five males and one female in Iddo, six males and one female in Isale-Oyo. These persons were identified through the head of the traditional healers associations operating in the two communities. After the names and addresses of each healer were documented, they were visited in their homes and invited to take part in the study. Verbal consent was obtained from each person by explaining the purpose of the study, that participation in it was voluntary and that the data provided will be kept confidential. Each healer was interviewed separately using an interview guide that explored issues relating to causes of blindness, perceived severity, symptoms and cost of care. As with the focus group discussion, all interviews were conducted in Yoruba.

Fifteen itinerant patient medicine sellers who live in Oyo town and travel on motorcycles to the surrounding rural communities in Oyo were selected and invited to the multipurpose hall in Isale-Oyo. They were identified by community health officers working at the health center in Isale-Oyo. Ten of the 15 who responded to the invitation were interviewed after the purpose of the study had been explained. Each patient medicine seller was interviewed separately to explore their perception of the magnitude, causes and management of blindness and blinding eye conditions. The interviews were also conducted in the Yoruba language.

FINDINGS

Profile of Key Informants

As mentioned, the informants consisted of two males and two females. Their ages ranged from 48–100 years, with a mean of 56 years. All the healers were permanent residents in Iddo or Isale-Oyo as of February 2005, when the study was conducted. The similarities of the responses in Iddo and Isale-Oyo were striking. Three key themes emerged from the interviews: the perception that blindness is caused by many factors, that blindness is curable and that blindness is associated with severe consequences. The details of these themes are presented below.

"Blindness Is Caused by Multiple Factors"

Informants perceived that blindness is caused by four factors—namely, supernatural means, *narun*, the local name given to onchocerciasis, (a chronic endemic disease in the area), situations in which excessive sweat gets into the eyes of farmers and *kokoro* (i.e., germs that are believed to live naturally in the body). However, the informants believed that blindness resulting from supernatural causes and *narun* was more common in their areas than others. Informants provided elaborate explanations of the process of causation of blindness by supernatural means. As one male healer explained, "As our fathers used to explain to us, someone may become blind because *won naka si loju*, literally meaning a wicked person points a finger into someone's eye" (male healer aged 80 years). Typically, someone becomes a victim of this type of behavior if he/she had had a bitter quarrel or disagreement with a neighbor. The aggrieved neighbor may punish his "enemy" by contacting another healer who makes the charm on his behalf. Informants also said that

the charm is typically made as a ring and worn. When it is worn and displayed such that the victim sees, it he/she becomes blind immediately.

With respect to blindness caused by *narun*, informants explained the claim that the germ that causes *narun* enters the body through several means, including wading in water or dust that enters the eye during sweeping. There is also the belief that the germ moves around the whole body and later gets into the eye to cause blindness. However, one of the healers believed that *narun* is a hereditary disease that manifests only in adulthood. Concerning onset of symptoms, the healers believed that blindness caused by supernatural means typically occurs suddenly, while blindness caused by other factors occurs slowly through other signs like itching.

According to participants from focus group sessions, the eye is the gateway or light to human existence. "If the eye is lost, the next is to die." The participants perceived that the eye is superior to other parts of the body—*oju loba ara*. Discussants identified one type of eye-related problem—namely, itching, which they attributed to two causes. The first is excessive consumption of carbohydrates and food seasoning (monoglutamate). The second is supernatural—*amuwa olorun*, i.e., "God's making." The focus group discussion participants with eye-related problem attributed their situation to different causes including motor accident, typhoid or high fever, "Apollo" (i.e., conjunctivitis, itching of the eye) as well as curses from wicked persons.

Focus group discussants identified two major causes of blindness. According to them, *narun* is a major cause of blindness; the other is *afota*, which is characterized by a situation in which *oju la sile sugbon ko riran* ("the eyes are just open, but the person is unable to see"). Other causes are "Apollo," conjunctivitis and *igbona* (small pox). Violation of pregnancy taboos could lead to eye diseases in the unborn baby.

On their own part, patent medicine sellers believed that aging, walking in the heat of the sun, farm-related injuries, poor feeding and measles were the causes of blindness. They claimed that many of their clients are referred to the hospital because of a fear of medical intervention may make eye conditions get worse, the perceived uncomfortable and "strange" environment of health facilities and the exorbitant cost of transportation. Surgery by western-trained doctors was associated with blindness, and there is the concern that the patients whose eyes had been operated may be forced to remain in one position for many days.

With respect to treatment, focus group discussion participants were of the opinion that use of local herbs such as *oje itakun* and immersing the eye into a bowl of clean water can be of help. Discussants identified four major reasons why persons with eye-related problems do not fully utilize health facilities for the treatment of their condition, including a perceived waste of time, exorbitant transportation cost, wrong information and not knowing whom to contact in the hospital. A few of the persons with eye problems said they stopped going to the hospital because their condition became worse. As a result, they now relied on spiritual care, self-medication and use of local herbal medicine.

"Blindness Is Curable"

All the healers claimed that blindness could be cured and that they had actually cured blindness in the past. However, the general feeling was that blindness caused by supernatural means was the most difficult condition to cure. As one healer puts it: "It is easier to deal with blindness caused by *narun* germs than blindness caused by human beings" (100-year-old male healer). Another reason for the difficulty in curing this type of blindness was that it usually destroys *omo oju*, literarily meaning the "little eye." However, cure of blindness due to supernatural forces is possible only if the problem was reported early and the affected person was able to identify the "wicked person" who made the charm. Informants also perceived that the cure of blindness due to *narun* also posed a challenge in that it takes time. As one healer explains, "The medicine that cures blindness caused by *narun* is patience" (80-year-old male healer).

Although the healers agreed that they could cure blindness, they disagreed on the mode of management of the condition. Whereas all the male healers believed that it could be cured by providing *agunmu* (i.e., concoctions made from herbs for the affected person to drink), the female healer claimed that she derived her healing power for curing blindness from God. When asked how many blind persons they had ever cured, the female claimed she had done so for three persons; one man had done several, while others did not answer the question.

Patent medicine sellers attested that treatment modalities used by the rural dwellers for managing eye diseases, including sugar water, cassava juice, *kafura* and *tiro*. Some discussants with eye-related problems offered suggestions that anybody having problem with his/her sight should go to hospital promptly for proper diagnosis and treatment before the problem gets out of hand. They reinforced that the use of battery acid solution in auto batteries, or human or animal urine for treatment of eye-related problems should be discouraged.

The healers also had divergent views concerning estimated cost of the cure for blindness. On one

hand, the female healer felt that she could not estimate the cost of cure because "treatment depends on the will of God." On the other hand, two male healers claimed that the actual cost depended on the social status of the person affected. Thus, the higher the perceived social status of the person affected the higher the cost of cure, which may range from ₦4000–₦5000 (approximately U.S. $50). The variability in the cost of treatment is a function of the time the affected person presents to the healer. As one healer explained, "We charge differently because the disease that has spread to many parts, built a house in the body, will take a much longer time to cure than one that has just occurred" (100-year-old healer).

"The Consequences of Blindness Are Severe"

There was a consensus of opinion that blind persons suffer several health and social consequences. The healers believed that *narun*, a precursor for blindness, destroys the reproductive system of the affected person. According to the healers, *narun* affects penile erection and women's fertility. *Narun* also "destroys a man's penis and causes irregular menstrual flow" (female healer). Healers used several descriptions to capture the importance of the eye and why its loss is devastating to those affected:

1. "It is better to die than to be blind; may God never make us lose our eye."
2. "The person affected has all kinds of problems: he cannot see what he eats, cannot identify someone except he/she recognizes voices."
3. "*Oju ni baba ara*, the eye is the fulcrum of the body."
4. "Although blindness does not affect work or the energy to work, the problem is that a blind person cannot even see what he wants to work on."
5. "A blind person cannot see the food he/she is eating. Neither can he identify his family nor the type of clothes he wears. The problems associated with blindness are too numerous."

Focus group discussion participants with eye-related problem confirmed that they had encountered several problems. As one discussant put it: "The 'blind' person would not be able to see what he is eating, is always sad and would not be able to attend any functions or sleep well." Another typical comment was that, "He/she would not be able to perform all those functions he/she had hitherto performed and could even injure him/herself in an attempt of doing so. Importantly, the person would not be able to see his/her the face of his family again." "If one is blind, he/she would eat anything that is brought to him/her to eat even if it is excreta."

DISCUSSION

In this study, we explored the perspective of rural men and women, traditional healers and patent medicine sellers on the causes and management of blindness and blinding eye diseases. The multiplicity of factors causing blindness was alluded to while the sociocultural implications were considered severe, but blindness was said to be curable. However, misconceptions; fatalistic beliefs, such as witchcraft; and wickedness were emphasized as the causes of most incurable blindness, especially if the afflicted failed to report early. The beliefs expressed in this study have been found to cut across various categories of traditional healers.[9-10,12-14]

Different categories of traditional healers exist in Nigeria, each group having their specialization. The traditional birth attendants, psychiatrists, traditional eye doctors, herbalists diviners, traditional bone setters and pharmacists. These practitioners have been found to have the same belief/practice as expressed by traditional healers interviewed in this study.[9,12,16,17] These groups, except the traditional eye healers, were assessed by western-trained nurses to be effective in their areas of specializations but to varying degrees.[13]

Early presentation of eye disease for effective treatment was reported to be important in this study. However, the symptomatology of early diseases versus late presentation could not be differentiated. This suggests that health education intervention must be designed specifically to increase awareness of symptomless diseases to detect them in the early stages. Preventive and promotive eye health practices should be encouraged in the rural areas of study.

It is well known that the majority of subjects with blinding eye problems from rural areas seen in orthodox health institutions had consulted traditional healers first.[9,10,12,14-19] Alternative sources of consults were patent medicine sellers, where there were personalized and social interactions between clients and operators, free consultancy and flexible pricing, as has been noted by earlier studies.[14] There is a need to work with the traditional eye healers as well for success of the health education program—such is currently not practiced among the group studied.

Germs believed to be live naturally in the body and sweat in the eyes of farmers were considered causes of blindness. *Narun* seemed to be well known among the traditional healers, patent medicine sellers and the community members. Members linked germs and itching with blindness, related the location of the afflicted to wading in waters and to sweeping and suggested herbs such as *oje itakun* to be the treatment. Supernatural causes of blindness

manifest by staring gaze, in which the sufferer has eyes that look normal but don't see. These were reported common among the inhabitants of Iddo and Isale-Oyo. Further questioning suggests these descriptions may be referring to blindness from posterior segment diseases, e.g., glaucoma and other causes of optic atrophy, but the sudden nature of affliction alluded to contradicts what is known by western medicine as the natural history of chronic glaucoma. The recognition of red eyes, "Apollo" and *igbona* (febrile illness) to blindness is widespread among community members in Iddo and Isale-Oyo. Pregnancy taboos were to be strictly adhered to in order to avoid congenital eye diseases.

All of the healers identified that their efforts to cure patients were guided by experience, specialist knowledge and supernatural powers. This was the case with traditional healers in Kenya.[16] Treatment procedures and preventive techniques were based on conceptions of causality. The implication of spiritual attacks or wickedness in the causation of eye disease is likely to be cause manifest with late presentations as has been found with most diseases in the developing world.[14-19]

The fact that the traditional healers considered patience an important requirement for the cure for *narun* suggests the chronicity of the disease especially if the sufferer presents late. Treatment of eye diseases with traditional healers is not cheap and compares closely to what is charged in ophthalmic clinics in Oyo State. Herbs, the types which traditional healers were not ready to disclose, and rituals were the major treatment given to difficult eye diseases. Whereas treatment for *ibon–oju* (cataracts) was not disclosed, it is well known that dislodgement of opaque lenses—couching—has been practiced in the Yoruba community for the treatment of cataracts for a long time.[15]

Referral to the hospital was mentioned by the respondents in cases where they failed in their treatment or when they knew that the patient would be better treated in the hospital. This practice is generally so among traditional healers across most parts of Africa.[12]

Cooperation among health workers, traditional eye practitioners and community members using the information obtained herein shall be useful in encouraging healthy practices.

Fear; misconceptions; fatalistic beliefs such as witchcraft; and God's punishment come out as other causes of blindness in this study. That there is very little one can do in such cases is a strong barrier to seek help, but advantages can be taken of this perception in designing health promotion program.

This study has identified some local vocabulary used for blinding eye diseases, which would aid the ophthalmologist's knowledge and understanding of eye conditions. It would also be valuable in developing concepts to be developed in a survey. For example, *narun* may be onchocerciasis and other optic nerve diseases, *afota* may be referring to blinding posterior segment diseases, "Apollo" for red eyes and *ibon oju* may be cataract.

The methods used in investigations in this study revealed that blindness was perceived as a major public health concern. Health workers may take advantage of this concern to educate rural dwellers about steps to take to prevent blinding and other eye conditions. Traditional healers have been noted to have considerably more eye care interactions with rural populations, as suggested in this study. Their readiness to collaborate with existing biomedical eye care providers has been documented.[16,17] Given the correct information, some of these healers could form a useful group through which the community can be reached regarding good eye health practices.

The limitations of this study must be pointed out. The findings may not be generalized to all rural Yoruba communities in Nigeria because of the limited number of study participants. Nevertheless, this study has provided insights into perspectives of frontline health workers who provide primary eye care services and data for planning comprehensive interventions to promote primary eye care for citizens living in rural communities in Nigeria.

CONCLUSION

Local beliefs as to the causes and management of blindness and blinding eye conditions have been established among Yoruba rural dwellers, and the disease spectrum has some similarities to traditional practice. Barriers to using existing health services were mainly fear, misconceptions and costs. This information should be useful in developing interventions, patient education and modification of behaviors for rural dwellers in the Yoruba community.

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