

# Incidence and risk factors for traditional eye medicine use among patients at a tertiary eye hospital in Nigeria

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## Abstract

**Objective:** To determine the incidence and risk factors for traditional eye medicine use among patients at the Guinness Eye Center Onitsha, Nigeria.

**Materials and Methods:** Consecutive new adult ophthalmic patients seen at the Guinness Eye Center Onitsha between January and April 2007 were interviewed on the use of traditional eye medicines and the type of traditional eye medicine used.

**Results:** Of the 500 patients interviewed, 66 (13.2%) had used traditional eye medicines (TEM). The 66 patients, aged 18-84, were made up of 32 males and 34 females. The commonly used TEM were liquid from plant leaves and roots and other concoctions of unknown origin. Conjunctivitis and cataract constituted 54.5% of the ocular problems; 15(22.7%) patients had visual impairment while 5(7.6%) other patients were blind.

Risk factors for TEM use include age above 50 years ( $P<0.001$ ); residence outside Onitsha metropolis ( $P<0.001$ ) or  $\geq 25$  kilometres away from our hospital ( $P<0.02$ ) and lack of any formal education ( $P<0.02$ ). Decision to use TEM was not affected by gender ( $P>0.05$ ); chronic nature ( $P>0.05$ ) or painfulness of the ocular disease ( $P>0.05$ ).

**Conclusions:** Traditional eye medicine is highly patronized by the people. Health education programmes with emphasis on safe eye care practices need be intensified in traditional healers and among the groups at risk.

**Key words:** Traditional eye medicine, traditional healers, Nigeria

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## Introduction

The practice of traditional medicine dates to antiquity. As different cultures evolved, traditional medical practice is modified or entirely abandoned in preference to western-oriented modern scientific medicine. Nevertheless, traditional medical practice still thrives in Africa and other developing countries where the practitioners are highly patronized<sup>[1-3]</sup> and adherence to the *juju* concept of illness and health is still strong.<sup>[4,5]</sup>

Factors accounting for the continued patronage of traditional medicine and the practitioners include cultural affinity, cost/affordability, and easy access to the practitioners.<sup>[1,5,6]</sup> Most practitioners of traditional medicine reside in rural areas and

the disadvantaged sections of urban settlements. Modern hospitals and health centers on the other hand, are in most cases located in the cities. Only few patients in need of the services of the hospital are actually able to access and pay for them. Some traditional medicine practitioners combine their work with quasi-religious functions such as divination.<sup>[7]</sup> They also fully understand the cultural milieu in which they practise and so use this advantage to effectively administer psychotherapy on their patients.

Traditional medicines are used for treatment of different

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diseases including ocular problems. Consumers of the products do so in the belief that it will cure or relieve them of their ailment. But the efficacy of traditional medication is in most cases not proven. While some of them may not be more effective than a placebo, the application of some others could actually be harmful to the eye. Reports from Nigeria<sup>[8,9]</sup> and other parts of Africa have documented the deleterious effects of traditional eye medicines.<sup>[3,7]</sup> The adverse effects include worsening of the original illness and predisposition to infections that in some cases totally destroy the eye.

Anecdotal evidence suggests that some of the patients seen at the Guinness Eye Center Onitsha use traditional eye medicine and only seek the assistance of the modern ophthalmologist when the former fails. But the extent to which this is practiced is not known. Such information will be useful for the effective planning and implementation of eye health promotion as well as eye health education among the population served by the hospital. The present study is therefore aimed at determining the incidence and risk factors for traditional eye medicine use among patients seen at the Guinness Eye Center Onitsha, Nigeria.

## Materials and Methods

Consecutive new adult ophthalmic patients seen at the Guinness Eye Center Onitsha between January and April 2007 were the subjects of the study. Each patient completed an interviewer-administered questionnaire. Information obtained from each patient included socio-demographic data; use of traditional eye medicines; type of traditional eye medicine used; and clinical ocular diagnosis. Statistical analysis of the relationship between some of the variables was with the chi-square test with the alpha level at 0.05.

## Results

Of the 500 patients interviewed, 66 (13.2%) had used traditional eye medicines as part of treatment for their ocular problems. The 66 patients were made up of 32 males and 34 females. All the patients were of the IGBO ethnic group. The age range of the patients was 16-84 years; median 48 years. The patients' educational attainments were nonformal education 12 (18.2%); primary school 23 (34.9%); secondary school 16 (24.2%); postsecondary school 15 (22.7%). While 18 (27.3%) patients live within Onitsha (the location of our hospital), 24 (36.4%) live 25 km away, 21 (31.8%) reside 50 km away, and 3 (4.5%) live more than 50 km from Onitsha.

Table 1 shows the occupation of the patients. Students, traders, and farmers constitute more than two-thirds of the patients. In Table 2 is shown the type of TEM used by the patients. The commonly used TEM were liquid from plant leaves and roots and other concoctions of unknown origin. The clinical diagnosis is shown in Table 3. More than half of the patients

**Table 1: Occupation of the patient**

Occupation	No	%
Student	20	30.3
Trader	15	22.7
Farmer	12	18.2
Artisan	7	10.6
Pensioner	6	9.1
Civil servant	5	7.6
Clergy	1	1.5
Total	66	100.0

**Table 2: Type of traditional eye medicine**

TEM	No	%
Liquid (from leaves/roots)	57	86.4
Human urine	4	6.1
Sugar solution	2	3.0
Powdery substance	2	3.0
Holy water	1	1.5
Total	66	100.0

TEM = Traditional eye medicine

**Table 3: Clinical diagnosis**

Diagnosis	No	%
Conjunctivitis	21	31.8
Cataract	15	22.7
Refractive errors	10	15.2
Corneal ulcer	5	7.6
Pterygium	5	7.6
Glaucoma	5	7.6
Diabetic retinopathy	2	3.0
Uveitis	2	3.0
Optic atrophy	1	1.5
Total	66	100.0

had conjunctivitis and cataract. Fifteen patients (22.7%) had visual impairment (Snellen acuity <6/18--3/60) while 5 (7.6%) other patients were blind (acuity <3/60), thus making a total of 20 patients (30.3%) with low vision in their better eyes.

Patients aged 50 years and above are more likely to use TEM than those younger than 50 years ( $\chi^2 = 13.6$ ; df 1;  $P < 0.001$ ). Patients living outside Onitsha were more likely to apply TEM than those residing within Onitsha ( $\chi^2 = 11.1$ ; df 1;  $P < 0.001$ ); similarly patients living 25 km or farther from our hospital are likely to use TEM ( $\chi^2 = 6.3$ ; df 1;  $P < 0.02$ ). Compared with patients with at least primary school education, those patients without any formal education are more likely to use TEM ( $\chi^2 = 5.6$ ; df 1;  $P < 0.02$ ). However, there was no difference between males and females ( $\chi^2 = 1.8$ ; df 1;  $P > 0.05$ ); there was also no statistical difference between patients with chronic blinding diseases such as glaucoma and other patients ( $\chi^2 = 0.52$ ; df 1;  $P > 0.05$ ); equally of no statistical significance was TEM use among patients with acute painful conditions

such as trauma and cornea ulcer compared with others ( $\chi^2 = 0.3$ ;  $df\ 1$ ;  $P > 0.05$ ).

## Discussion

The Guinness Eye Center Onitsha is the only publicly-owned eye hospital in Anambra state with a population of more than 4 million people (2006 Nigeria national census). It has the highest concentration of ophthalmic manpower and facilities in the state. Although a population-based study would give more accurate information on TEM use, data from this hospital would strongly point out the illness and health-seeking behavior of the ophthalmic patients in Anambra state and its environs.

The results of the present study confirm the suspicion that some patients seeking treatment for ocular problems in our hospital had used traditional medicines for the same illness before presenting to our hospital. This practice appears to be common in Africa. Courtright and Lewellan<sup>[3]</sup> had reported that up to a third of corneal ulcer patients seen in rural Malawi had used traditional eye medicines. The present study shows that at least 13.2% of the patients had used traditional eye medicines as part of treatment for their ocular ailments. This may be the tip of the iceberg since this is a hospital-based study. It is clear that traditional medicine though derided is highly patronized by the people.

Formal education and domicile seem to play vital roles in the decision to use traditional eye medicine, since patients without any formal education and those residing outside Onitsha metropolis or  $\geq 25$  km away from our hospital were more likely to use TEM ( $P < 0.05$ ). Nearly half of the patients had at least secondary school education; more than a quarter of these patients reside within Onitsha – our hospital's location. Perhaps general and health education as given at schools may have yielded positive results. However health education programs with emphasis on safe eye care practices need be intensified among rural dwellers. Other issues that may be pivotal in the embrace of traditional eye medicine include the practitioner's patient-friendliness, easy access to treatment, affordability, and cultural beliefs. These factors require further study.

Herbs, roots, and their derivatives were the most common types of traditional eye medicine used by our patients. The efficacy of these roots and herbs is unproven and may actually be toxic to the eye. This is similar to the experience of Osahon<sup>[9]</sup> in Benin-City who also pointed out the adverse consequences of the use of the unorthodox medication. TEM use resulting in severe and uncontrolled eye infection had been documented as the indication for surgical removal of the eye ball in 37.5% of cases in our hospital.<sup>[8]</sup> Some the herbalists apart from prescribing and administering the roots and herbs also attempt eye surgery. Mpyet *et al.*,<sup>[10]</sup> had reported about couching by traditional healers in Nigeria and this fact was corroborated by the recent

report of the Nigeria's national blindness and low vision survey revealed that most of the cataract operations in the country were performed by herbalists who couch the affected eyes.<sup>[11]</sup> The poor visual results from the couching means that the patients continue remain blind in the couched eyes.

This study found that patients older than 50 years were more likely to use TEM. Although it could be surmised that TEM use involved mainly the older population that are proportionately smaller, this group may in reality constitute a more powerful segment since they take decisions on allocation of family resources. As custodians of culture the elderly advise on health care remedies especially in settings where there are no trained health personnel. Therefore any program on safe eye care practice must target the older population.

In conclusion this study suggests that at least 13.2% of the patients seen in our hospital had used TEM and perhaps only came to the hospital when initial treatment did not yield the desired results. Older age, lack of formal education, and rural habitation are risk factors for TEM use. Any health education designed to curb this source of avoidable blindness must target these groups at risk. Since traditional healers including herbalists are highly patronized there is need to educate the healers on safe eye care practices. This collaboration between orthodox and traditional healers has yielded encouraging results in other parts of Africa.<sup>[6,12]</sup>

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