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Vision 2020: Preferred Sources of Eye Care Amongst a Semi-Urban Community in Nigeria

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ABSTRACT

Aim: The aim of the study was to determine forms of eye care interventions among the subjects. Methods: it was a prospective study carried out in December 2016 in Kabba, Nigeria. Results: There were 106 subjects (female, 74 and male,32). Mean age was 53+/-5.37, and age range was 15-88 years. Eighty two (77%) participants were 40 years and above. Half of the participants use Chemist shops or native medications whenever they have eye problems and half had formal education. Petty trading (20.8%) and artisan (18.8%) were the most common occupations. Urine was the commonest home remedy used alone or in combination with other local remedies. The associations between sex and age groups and use of home remedies were not statistically significant (P values = 0.12, 0.17 respectively) unlike with education. Conclusion: the study showed that the use of non-orthodox medications is still rampant amongst this population three years to the deadline of 2020. There is need, therefore, for health education to increase the knowledge of eye-care, especially among illiterate persons.

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INTRODUCTION

VISION 2020: the Right to Sight is an established partnership between the World Health Organization (WHO) and the International Agency for the Prevention of Blindness (IAPB). It was estimated that there were 45 million blind people and another 135 million with low vision (WHO, 1997; Ingrid, 2002; Dandona and Dandona, 2001). Even more distressing was that without new and targeted programs these numbers would double in 20 years between 1990 and 2020 (Hugh and Jill, 2001). The ultimate goal of the initiative was to integrate a sustainable, comprehensive, high-quality, equitable eye care system into strengthened national health-care systems.

Thus, at inception six key strategic areas were mapped out to accelerate impact of VISION 2020 programs (Akinsola *et al.,* 2004). These comprised advocacy for Eye Health, Policy and Program Development, Quality in Eye Care, Resource Mobilization and Sustainability, Resource Center, and Organizational Development. These strategies are being executed through collaborative efforts of governmental organizations, non-governmental organizations, eye care organizations and national collaborators.

Much has been achieved over the first eighteen years of VISION 2020, but a great deal more is required if the ambition to eliminate avoidable blindness by the year 2020 is the target. It is progressing at the various levels such as wards, districts, villages, towns and cities that will lead to the actualization of the goals of VISION 2020 (Dandona *et al.,* 1999; Melese *et al,* 2004). Attitudes and beliefs about prevention, treatment, and the inevitability of disease and vision loss are important. Eye care practices may be location specific owing to the nature of the healthcare system, but many other aspects appear to be universal (Hugh and Jill, 2001; Ekpeyong and Ikpeme, 2009).

Evaluation could either be formative or summative. Formative evaluation preceded various WHO Vision 2020 interventional strategies. Scheduled summative evaluations ensure sharing knowledge acquired through well researched epidemiological studies. Appraisals should be at every point of intervention in the community as felt health needs tend to be peculiar and regional. Identified areas of strength can be consolidated upon while areas of inadequacies can be modified to yield desired outcome. In addition, baseline information about regional eye care practices would assist in strengthening policies for advocacy and implementation. This is the modest aim of the current study.

MATERIALS AND METHODS

The Study was conducted in Kabba, a semi-urban town in Kogi state, North-Central Nigeria. It is the political headquarters of Kabba-Bunu Local Government Area and the Okuns, one of the three major ethnic groups in the state. With a population of 145,446 (Nigerian census, 2006), it lies on $7^0$49'43"N, $6^0$04'23"E and has a land mass of 2,706km^2. There are a General Hospital and few private hospitals and chemist shops with no ophthalmologist rendering services in the area. Therefore, the only orthodox eye care services available are provided by opticians, general duty doctors and nurses who have limited or no training in ophthalmic care.

This was a descriptive study conducted in December 2016 during a free health screening exercise. 139 One hundred and thirty nine participants were given close and open ended modified questionnaires used by Damnemam *et al*., 2002. This composed of a section on demography and another on specific eye care interventions. Subjects were requested to pick an option or options regarding practice being followed to take care their eyes in the events of ocular ailments. Those whose options were not listed could pick others or not applicable. Questionnaires were administered by the researchers and were necessary interpretations were carried out by two nurses from the community who were part of the eye screening team.

All participants granted written or thumb-printed on specially consent forms in line with Helsinki declaration on research in living subjects. In addition, they also granted verbal consents at the point of questionnaire administration after being told the purpose of the study and what the community could benefit from the outcome of the study.

The data were coded and entered into SPSS 21.0 (SPSS Inc., Chicago, IL, USA), and analyzed. The associations were tested using the *Chi*-square test and was considered significant at a level of $P < 0.05$.

RESULTS

Questionnaires were collated and 106 were found to be research-worthy. Excluded questionnaires were due to either missed or incoherent information. There were 106 subjects with female participants (74) more than male participants (32). Male to female ratio was 0.4:1. Mean age was 53+/-5.37, and age range was 15-88 years. More details on age and sex distributions are in table 1.

Eighty two (77%) participants were 40 years and above. Only 20 (19%) have had one form of eye health talk in hospitals, eye camps, or media through prints, radio, or television. Table 2 shows that more than half of the participants use Chemist shops or native medications whenever they have eye problems. As noted in table 3, 50% had formal education of which majority was elementary education. This reflected in the occupation (table 4) as petty trading (20.8%) and artisan (18.8%) were the most common occupations.

In order of reducing frequency itching (22.6), diminution of vision (17%) and redness (14.2) were the most common symptoms reported (table 5).

Urine was the most common home remedy used alone or in combination with other local remedies. Others are onions, sugar water, breast milk, herbs, and sheer butter.

The associations between sex and age groups and use of home remedies were not statistically significant (P values = 0.12, 0.17 respectively). However, cross-tabulation of educational and use of home remedies showed statistical significance with a P value of 0.005.

Table 1: Age and Sex Distribution

Age range (years)	Male	Female	Total	Percent (%)
< 18	2	4	6	5.60
19- 39	7	11	18	17.0
40-59	8	26	34	32.1
> 60	15	33	48	45.3
Total	32	74	106	100

Table 2: Facilities Patronized by Subjects

Facilities visited	Frequency	Percent
Chemist	27	25.5
Hospital	46	43.4
Native	31	29.2
Nothing	2	1.9
Total	106	100.0

Table 3: Occupational Level of Participants

Educational status	Frequency	Percent
Primary	21	19.8
Secondary	14	13.2
Tertiary	18	17.0
None	53	50.0
Total	106	100.0

Table 4: Occupation of Subjects

Occupation	Frequency	Percent
Student	7	6.6
Farming	7	6.6
Housewife	19	17.9
Pensioner	8	7.5
Petty trading	22	20.8
Artisan	20	18.9
Civil servant	15	14.2
None	8	7.5
Total	106	100.0

Table 5: Subjects' Presenting Complaints

Complaints	Frequency	Percent
Trauma	6	5.7
Redness	15	14.2
Discharge	9	8.5
Foreign body in the eye	2	1.9
Apollo	7	6.6
Itching	24	22.6
Reduced vision	18	17.0
Growth	8	7.5
Pain	10	9.4
Floaters, cobwebs	3	2.8
No complaints	4	3.8
Total	106	100

Table 6: Home Remedies Used by Subjects

HTEMs	Frequency	Percent
Urine	11	10.4
Herbs	4	3.8
Sugar water	4	3.8
Breast milk	1	0.9
Onions	9	8.5
Mixed home remedies	17	16.0
Others	1	0.9
Sheer butter	2	1.9
None	57	53.8
Total	106	100

DISCUSSION

The patient's view of eye care can be very different from the health worker's view (Ingrid, 2002; Chana *et al.*, 1994). Either view is held onto by each party as being right. To effect the right behavioural change, therefore, there is a need to recognize and be sensitive to traditional beliefs within communities in which we work and for which we have a genuine concern and sense of responsibility (Ingrid, 2002; Michon and Michon, 2006; Dawn *et al.*, 2005). Being seen as part of the community and not aliens, health workers are more likely to affect the much desired positive behavioural change towards health issues.

Female population was more than twice male population in this study. Livingston *et al* opined that women were more likely to participate in regular eye health care (Livinston *et al.*, 1998). This is consistent with the previous reports of women's overall perception of health care and the propensity for women to seek out preventive health care compared with men (Green and Greyter, 1992). Against the backdrop of being economically underprivileged in many settings of developing countries, women take advantage of free health programs (Pardhan and Mahomed, 2004; Lewallen and Courtright, 2002).

Associations of age and sex with regards to health care behavior have not shown consistency in many studies (Thylefors *et al.*, 1995; Lewallen and Courtright, 2001; Abou-Gareeb *et al.*,

2001). In the current study, neither age nor sex showed significant relationship with use of non-orthodox eye preparations. In a path-finding study by Ayanniyi *et al*, 2010 to determine the challenges, attitude and practice among spectacles wearers, sex was not significantly associated with choice of glasses or individuals who provided the spectacles. But sex (P = 0.005) was associated with how glasses were maintained and cared for. Age and sex were not associated with the KAP (Knowledge, Attitude and Practice) among Omani subjects with diabetes (Khandekar *et al.,* 2010). This was also observed in Myanmar study (Khandekar *et al.,* 2010). Thus, in health care interventions, age and gender specific intervention strategies may not be required to improve knowledge, attitude and practice of patients with regards to some eye-related health care behaviours.

Home remedies were used by 46.2% in our study. This percentage is much higher than 21.5% and 35% reported in two separate Asian studies (Khandekar and Harby, 2008; Danneman et al., 2002). Mselle (1998) reported the use in 49% of Tanzanian patients with an eye injury while 33.8% was reported in Malawi, another East African country by Courtright *et al,* 1994. A previous study in Benin, Nigeria reported that 1.72% of patients seen at a hospital-based eye clinic over a 6-month period had ocular complications from the use of traditional eye medications (Osahon, 1995). Another hospital-based Nigerian study reported that 3.5% of trauma cases used home remedies before presentation. These low figures are unlikely to reflect the general outlook in the Nigerian population as patients may not volunteer relevant information because of perceived unfavorable reactions of the doctors or nurses.

The trend in the use of non-orthodox, often harmful ocular medications appears not to abate over the years. It is still not clear what factors contribute to use of home remedies as poverty alone cannot be responsible (Melese *et al*., 2004; Guzek *et al.,* 2005; Rotchford *et al.,* 2002). Many Over-The-Counter Drugs (OTCs) are safer and can be afforded by many individuals who have used or are using home remedies. Sadly, common ocular symptoms such as itching, redness, discharge, and visual impairment as noted in this study and several other similar studies (Ajite and Fadamiro, 2013; Ashaye *et al.,* 2006; Ntim-Amonsah *et al.,* 2005; Baba, 2005) will continue to attract self-help which comes in form self-medication of unhygienic non-orthodox eye concoctions with daring consequences to vision.

Eye health education in form of health talks was only in 20% of our subjects and may be responsible for the high use of home remedies. Health talks have direct impact on the

populace as a health issue is addressed each time (Basch *et al.*, Orr *et al.*, 1999; Javitt, 1995). Participants could ask questions giving room to dispel strongly held wrong and harmful practices.

In conclusion, non-orthodox unregulated home remedies are still being used by some sections of Nigerian society. Low levels of education and lack of eye health education may have contributed. As eye health education becomes efficient through illustrations and lucid expressions, standards of individual's eye care will improve and the past misconceptions on eye care will diminish.

There were obvious limitations in this study. It was a non-randomized study and health practices are regional such that extrapolation to other parts of the country should be with caution. Secondly, the questionnaire used in present study was not standardized just like many previous population based studies on similar subject. But it was adapted from a similar study on making room for reasonable inferences.

It is recommended that health promotion in form of local illustrations and demonstrations be carried out in identified unreached areas of rural and semi-urban communities in Nigeria and Africa. It has been advocated that traditional healers and chemist operators be incorporated into primary eye care especially in rural areas (Chana, 1994). These people live in the community of the patients and are well known and accepted by them. They can be trained on identification of simple eye diseases, first aids and prompt referral formalities when the need arises. This is cost effective and bridges the gap between the patients in need of eye services and ophthalmologists who are often in big secondary or tertiary centers in the cities.

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