

GLAUCOMA AWARENESS AMONG TERTIARY HEALTH CARE WORKERS IN MAIDUGURI, NIGERIA.

ASKIRA BH, WAZIRI MA, MUSA ZY, RIBADU DY, KYARI FA.

ABSTRACT

Background: Glaucoma is second only to cataract as the leading cause of preventable blindness in the world. The devastating effect of this disease is often neglected. Most people with glaucoma are usually unaware that they have the disease until significant loss of vision has occurred. **Objectives:** The aim of the study is to establish the level of awareness to glaucoma among staff of University of Maiduguri Teaching Hospital. **Materials and Methods:** This cross sectional descriptive study conducted as part of glaucoma awareness campaign to mark the World Glaucoma Week. The entire staff of the University of Maiduguri Teaching Hospital that voluntarily consented to the study were recruited. A structured questionnaire was designed and administered in the clinic during the screening exercise. **Results:** A total of 285 participants were recruited. The ratio of male (M) to female (F) was 1.4:1. The most frequent age group was 40-49. Glaucoma awareness was found to be 60.4%. The sources of awareness of glaucoma were 41.8% from doctors, 29.7% from news media and 14.0% from nurses. A total of 40.7% know that glaucoma can cause blindness and 32% know that glaucoma blindness is irreversible. **Conclusion:** In this study the awareness of glaucoma is high. Further studies to determine the knowledge and adverse affect of glaucoma on vision are advocated.

KEYWORDS : Glaucoma, Awareness, Tertiary, Maiduguri

INTRODUCTION

Glaucoma is a multifactorial optic neuropathy with characteristic acquired loss of retinal ganglion cells (RGC), atrophy of the optic nerve head typified by pale cupped discs and characteristic visual field defects. It is second only to cataract as the leading cause of preventable blindness in the world¹. It is estimated that over 65 million people throughout the world are affected by glaucoma². In Africa glaucoma accounts for 15% of blindness and it is the region with the highest prevalence of blindness relative to

other regions of the World³. The Nigeria National Blindness and visual impairment survey reported the prevalence of glaucoma related blindness at 0.75%; second only to cataract induced blindness³. Olurin reported the incidence of glaucoma in people over 40 years of age in Nigeria to be over 10%⁴.

The devastating effect of this disease is often neglected. Most people with glaucoma are usually unaware that they have the disease until significant loss of vision has occurred⁵. A study by the Glaucoma Research Foundation found that 8.8% of Caucasians and 16.1% of African-Americans were unfamiliar with glaucoma⁶. About 6% of Americans have glaucoma and only about 50% of those who have glaucoma know that they have it⁷. Ntim-Amposah et-al⁸ in Ghana reported 94% of the glaucoma cases diagnosed in their series were unaware that they had glaucoma.

As glaucoma related blindness is only

Department of Ophthalmology,
UMTH, PMB 1414 Maiduguri, Nigeria.

Correspondence to:

ASKIRA BH

Department of Ophthalmology,
University of Maiduguri Teaching Hospital,
PMB 1414 Maiduguri, Nigeria.

eMail:- bhaskira@yahoo.co.uk



avoidable with early detection and treatment, it is imperative to find asymptomatic individuals in the target population⁹. However, for people to present to eye care providers they need knowledge about glaucoma and the benefits of early detection and treatment¹⁰. Awareness and knowledge of a disease are major determinants in seeking medical help early and may also influence drug compliance.¹¹

This study was done to establish the level of awareness of glaucoma among the members of staff of University of Maiduguri Teaching Hospital (UMTH), their spouses and dependants.

MATERIALS AND METHODS

This is a descriptive cross sectional study, conducted as part of glaucoma awareness campaign to mark the World Glaucoma Week from 10th to 16th March, 2013. During the period the entire staff of the UMTH, their spouses and dependants who voluntarily consented to the study were recruited. The approval of the Hospital management for the screening and the study was sought for and obtained. A circular was issued to individual department requesting staff members to participate in the screening exercise and a public lecture was organized to sensitize members of staff on glaucoma awareness and the screening exercise.

A structured questionnaire was designed to capture information about the demography and awareness of glaucoma. The age, sex, tribe and educational levels of the respondents was obtained. The questionnaire also sought information about whether the respondents have ever heard of glaucoma before presentation, the source of information, and if the respondent knows glaucoma causes blindness and whether it can be treated or prevented. Respondents were also asked if they know how blindness from glaucoma can be prevented.

The questionnaire was self administered in the eye clinic during the screening exercise. It was administered to all consecutive current/retired staffs of UMTH, their spouses and dependants. Those who needed help were assisted in the administration of the questionnaire by either of the consultant ophthalmologist in the eye clinic. All those who were not serving/retired, spouses or dependants of members of UMTH staff were excluded from the study. The data obtained was presented in simple tables and percentages.

RESULTS

A total of 285 members of staff of the UMTH, their spouses and dependents who voluntarily presented themselves for glaucoma screening were recruited. There were 164 males and 121 females with a ratio of 1.4:1. The mean age of the respondents was 49.4 years while the most frequent age group was 40-49 years as shown in table I. Table II shows the educational levels of the respondents. Majority of the respondents (56.1%) attended tertiary institutions. Table III shows the sources of information of glaucoma awareness among the respondents. The majority of respondents were informed by doctors (41.8%). One hundred and sixteen respondents (40.7%) know that glaucoma can cause blindness and 51.2 % (146) do not know that glaucoma can cause blindness while 33.7 % (96) know that glaucoma blindness is irreversible. Of the respondents who know glaucoma can cause blindness 35.1% know that glaucoma blindness can be prevented by regular eye examination or screening of first degree relations of glaucoma patients while 63.9% of the respondents have no idea that glaucoma blindness is preventable.



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Table I: Age group of respondents

Age (years)	Number	Percentage (%)
< 40	8	2.8
40-49	170	59.6
50-59	84	29.5
60-69	17	6.0
70 and above	6	2.1
Total	285	100

Table II: Educational level of respondents

Educational level	Number	Percentage (%)
Primary	30	10.5
Secondary	33	11.6
Tertiary	160	56.1
Qur'anic	55	19.3
None	7	2.5
Total	285	100

Table III: Sources of information on glaucoma by the respondents

Source of glaucoma awareness	Number	Percentage (%)
Doctors	72	41.8
Mass Media	51	29.7
Nurses	24	14.0
Optometrists	12	7.0
Social organizations	7	4.0
Relatives	6	3.5
Total	172	100



DISCUSSION

A total of 285 respondents answered the questionnaires. The majority were males. This may be due to the fact that majority of the hospital employees were males.

Glaucoma awareness before presentation was found to be 60.4% in this study. This compares favorably with studies in Abuja¹² (74.5%) and Makkah¹³ (69.1%). The high level of awareness seen in this study may be attributed to the fact that the study was conducted amongst workers in a tertiary health facility with participants cutting across various health professionals. The curriculum of the medical, nursing schools, and other allied health care training colleges in Nigeria involves period of lectures and rotation through ophthalmology during which some important eye diseases are covered¹⁰.

In this study the source of information about glaucoma was mainly through doctors (41.8%). This may be in line with the fact that the study was done among workers in a tertiary health facility where some of the participants may have had formal education on glaucoma. This is in contrast to a survey done in Germany¹⁴, where friends were reported to be the main source of glaucoma awareness; and among people attending ophthalmic outreach services in Southwestern Ethiopia where the source of glaucoma awareness was through close acquaintances¹⁵.

Other studies on glaucoma awareness reported a close association of awareness with family history of glaucoma^{15,16,17} because glaucoma patients in the family may have volunteered the information to their relatives, friends and guides. In this study only 3.5% of the respondents gave relations as sources of glaucoma awareness. Interestingly, Onabolu OO, Bodunde OT.¹¹ in a study on Awareness and knowledge of glaucoma among primary care givers in a developing country found a positive family history of glaucoma in 26% of their respondents did not influence knowledge

of glaucoma. Generally, patients in developing countries and their relatives are reticent about discussing their health problems, thereby reducing information about inheritable diseases. This setback will have a negative influence on awareness of glaucoma.

In a study conducted in rural India¹⁸ mass media was the main source of glaucoma awareness. In this study 29.7% of the respondents' sources of glaucoma awareness were mass media. While Onabolu OO¹¹ reported 3.3% of the respondents' sources of glaucoma awareness were mass media. This is suggesting relative paucity of information from mass media. Perhaps health workers are at work when health programs are being aired. However, this source should be explored so that health education on glaucoma could be aired and printed in both English and local languages.

Glaucoma awareness was also found to be related to educational level. In this study we found that majority of the respondents (56.1%) have obtained tertiary education. Some studies have reported an association between high educational level and glaucoma awareness^{15,18,19}.

Only 32% of the respondents know that glaucoma can cause blindness and 35% know that glaucoma blindness is preventable. This finding is similar to studies in Saudi¹³ (33.2%).

In conclusion, in this study the awareness of glaucoma is high. Further studies to evaluate the knowledge and implication of glaucoma to visual loss need to be undertaken.

There is therefore, a need to establish information, education and communication strategies to increase the awareness of glaucoma to aid early diagnosis and treatment thus preventing blindness from glaucoma.■



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