

# Awareness, Knowledge and Attitude towards Glaucoma in Rural Eye Camps of Karimnagar, Telangana – A Questionnaire Based Study

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## ABSTRACT

**Aim:** The aim of this study is to evaluate level of awareness about glaucoma and attitude towards importance of eye screening among rural population of Karimnagar.

**Materials and Methods:** A questionnaire based study with a sample size of 8000 randomly selected from people in surrounding villages of Karimnagar through health camps from the institute, and were interviewed face to face with a pre structured questionnaire. The questionnaire is to evaluate level of awareness and knowledge about glaucoma and their attitude towards importance of screening for the disease.

**Results:** Awareness about glaucoma was very poor in the rural population, and females are less aware compared to males and illiterates are less aware compared to literates. Among the 8000 people who enrolled in the survey, the responses from 7635 (95%) participants - 2596 (34%) who were aware of the term glaucoma, 1450 (19%) who know glaucoma causing blindness, 153 (2%) have proper knowledge about disease course. 2825 (37%) showed positive attitude for eye screening, participants 4810 (63%) showed negative attitude.

**Conclusion:** There is lack of awareness about glaucoma causing blindness and the attitude for seeking intervention for glaucoma was not encouraging. There is unmet need of community based health education towards eye care to reduce ocular morbidity and irreversible blindness from glaucoma among rural population of Karimnagar.

**Keywords:** Awareness, attitude, glaucoma, knowledge, rural Karimnagar.

## INTRODUCTION

Glaucoma is the second leading cause of blindness worldwide<sup>[1]</sup> and is estimated to affect over 12 million Indians.<sup>[2]</sup> India has been projected to be the second largest home of glaucoma cases by 2020.<sup>[3]</sup> Lack of awareness about glaucoma is an important reason for its late presentation,<sup>[8,9]</sup> which significantly increases the risk of blindness.<sup>[10]</sup>

Attitude of patients to seek a screening procedure is encouraging only if they are aware of the asymptomatic course, risk factors or consequences of glaucoma. The present study is designed to evaluate the awareness, knowledge and their attitude towards glaucoma among rural areas of Karimnagar.

## MATERIALS AND METHODS

This population based study, using a pre structured questionnaire, was conducted in the surrounding villages of Karimnagar via health camps conducted through our institute Chalmeda Anand Rao Institute of Medical Sciences for a period of 10 months from May 2014 to march 2015. The questionnaire was designed in English and then translated into our local language (Telugu).

Karimnagar, Telangana with population of 37,76,269 with majority of 74.81% rural population. Area 11.80 km<sup>2</sup>, sex ratio 1008, density of population 319. The literacy rate of 59.61% among rural areas compared to 77.77% urban literacy rate. The majority of the rural population lively hood is agriculture and daily labourers.<sup>[27]</sup>

## PRE-SURVEY WORK UP

The study was approved by the ethical committee of Chalmeda Institute of Medical Sciences, Karimnagar. The community leaders were subsequently approached and the community were informed by announcements in the community meetings, religious meetings, and market

days and through the town crier, and village heads. Permission was sought to enter the community and a date was agreed upon after the community members were duly informed. Consent for participation was obtained from the enrolled participants.

The survey was carried out at the community halls from morning 9 am to evening 5pm on the appointed dates. Beginning with health talks on care of the eyes and common eye problems. There were 3 stations for the survey process.

The first was registering respondents as well as collecting the demographic data such as name, age, gender, education, occupation. Second station is to know the level of awareness about glaucoma, whether the participants heard about glaucoma and the source of the information. Third station is about the attitude of people towards screening.

The pre structured questionnaire covering the awareness of glaucoma, sources of information, causes, types of treatment and attitude towards intervention. Diagnosed cases of glaucoma were excluded from participating, which would affect the true assessment of the general population. Our survey was done by optometrists, refractionists, and health camp organizing team and healthcare professionals, of our institute (CAIMS) who had optimum knowledge about glaucoma and were priory trained about the questionnaire.

## RESULTS

Of the 8000 enrolled participants 365(4.9%) forms were excluded, whose family member already had glaucoma which would affect the true assessment of the awareness. Responses from the remaining 7635 participants were

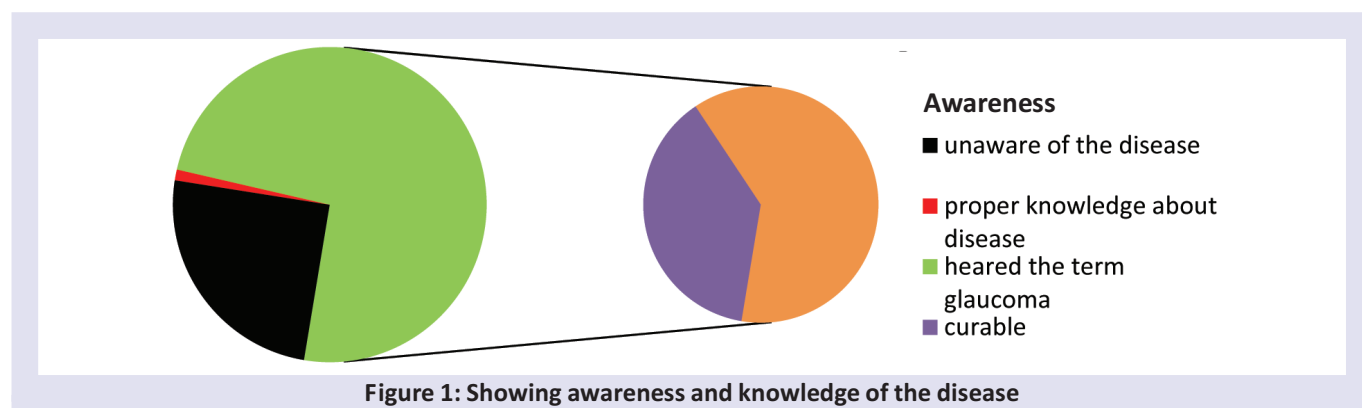
analysed. The age of the study sample ranged from 18 to 90 years (mean  $49.73 \pm 16.6$  years). Among the 4505 (59%) literate participants, 3109(69%) were males and 1396(31%) were females. Among the 3130 (41%) illiterate participants, 1847 (59%) were males and 1283(41%) were females.

Among 7635 participants 3436(45%) do not know about glaucoma(not heard the term ), participants 2596(34%) heard of term glaucoma but don't know anything about it, participants 1450(19%) know that glaucoma causing blindness, 153(2%) proper knowledge about course of the disease, 1595(38%) believing that it is curable, 2604(62%) believing that it is not curable.

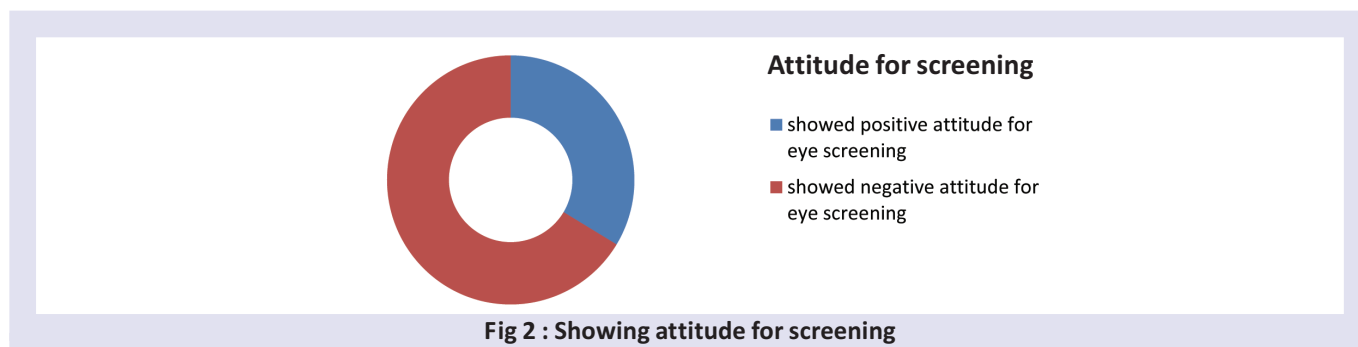
Regarding the attitude towards the disease 2825(37%) showed disinterest for eye screening by coming to eye care centres on their own, 4810(63%) showed interest for screening for eye health. In our study interestingly participants of age group > 50 year showed more interest for eye screening and intervention compared to other age groups. There is no significant association between gender

**Table 1: Shows the demographic characteristics of the participants**

variable	%
Age group(years)	
18-29	24%
30-50	46%
>50	30%
Gender	
males	68%
females	32%
Literacy	
Illiterate	41%
Elementary	16%
10th standard	22%
Graduation	12%
Post graduation	9%



**Figure 1: Showing awareness and knowledge of the disease**



and attitude towards the disease. The level of education had a significant association not only awareness and knowledge but also attitude towards the disease.

Source of information for 2561 (61%) participants was from neighbours and friends. Another 1007 (24%) participants had received information from visiting hospitals, medical personnel, eye camps, TV and other resources (15%).

## DISCUSSION

This study assesses the awareness and knowledge about glaucoma among rural residents of Telangana. A large number of participants had heard about the local term used for glaucoma, but very few were actually aware about it. Our study did not find any relationship between age or gender and glaucoma awareness similar to other studies.<sup>[8,18-20]</sup> Relationship between gender and attitude towards glaucoma are not fixed and vary with socio economic, and literacy levels, Similar to the study.<sup>[21,22]</sup>

In our study, awareness and knowledge was better among literates and among close acquaintances of glaucoma patients. Similar to the studies done previously.<sup>[8,12,13,19,20,23]</sup>

Only a small fraction (2%) of the respondents knew that glaucoma was an asymptomatic disease. In a study by Lau et al<sup>[25]</sup> 19% of the participants were aware about the asymptomatic aspect of glaucoma. Lack of awareness could often lead to under-diagnosis and late presentation, as noted in several previous studies<sup>[4-9]</sup> and therefore, adversely affected the attitude for eye care.<sup>[9-12]</sup>

There was a large proportion of people 45% who had never heard of glaucoma, while only 2% had heard and understood the course of the disease. The most common source of awareness of glaucoma was TV/magazines followed by family members with glaucoma.<sup>[14]</sup> 38% participants believed that it is a curable and showed positive attitude in screening however they are not ready to visit eye care centres on their own but through health camps.

Literates seek early screening than farmers we understood

that it could be because of the planting or harvesting season for farmers and daily labourers who miss the work which means miss their wages. Interestingly females and age group of >50 year participants showed positive attitude for screening than others. It necessitates that community based health education, and mass media participate on a larger scale. Studies from the UK have reported the successful role of media in increasing the awareness about glaucoma.<sup>[26]</sup> Although our study results show a similar trend among rural Telangana residents, a direct comparison with other studies is difficult. The limitation of our study is unable to avoid selection bias and interviewer bias.

## CONCLUSION

There is lack of awareness about Glaucoma among rural areas, as awareness about glaucoma can lead to early detection; a very important step in preventing glaucoma related blindness<sup>[11]</sup> as well as a positive attitude towards eye care. There is unmet need of community based health education programmes regarding the eye care which means training of health staff like ANMs and anganwadi workers about eye health and encouraging people for regular eye screening.

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## CONFLICT OF INTEREST

The authors declared no conflict of interest.

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#### Appendix 1

First station:

Name                      age                      gender  
Literacy                      occupation

Date:  
Place:  
Serial No:

Second station:

1. Have you heard the term Glaucoma?                      Yes                      No

2. How do you know about the term

a. Word of mouth

b. TV/ eye camps / visiting hospital

c. Somebody in the family had it.

3. What do you know about the disease

a. Do not know anything about it.

b. Same as cataract

c. Due to age and familial predisposition

d. Knows the course and symptomatic phase of the disease

4. Is it curable

Yes                      No

Third station:

1. Are you willing to visit eye care centre for the screening of the disease even though you don't have any blurring or reduced vision?

Yes(positive)                      No(negative)