



A STUDY ON PERCEPTION OF COMMON EYE DISEASES AMONG RURAL POPULATION OF WEST BENGAL

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ABSTRACT Visual impairment is a significant health problem affecting the common man worldwide. Aim: The current study aimed to assess the awareness and knowledge of common eye diseases among the 15-65 years aged population residing in a rural area of Hooghly District, West Bengal. Methods: A cross-sectional study was conducted in a rural area of Hooghly District, West Bengal. A pre-design, pre-tested semi-structure questionnaire was used to assess the awareness and knowledge of common eye diseases. Results: Out of 657 individuals, only 65.8%, 14.5% 9.7% and 60.3% were aware about Cataract, Refractive error (Presbyopia / Chalse), Glaucoma and Night blindness respectively. The majority of participants reported sources of information about the common eye diseases and eye care encountered from the community, internet-based resources, and social media. Conclusions. The majority of the participants had awareness about the common eye diseases, whereas low percentage of participant's awareness about specific condition of eye diseases. Public eye health awareness should be more focused on social media and the internet to be able to cover the younger individuals of the community.

KEYWORDS : Perception, Eye Diseases, Rural Population

INTRODUCTION:

We perceive the beauty of anything and everything of our external world through our eyes. India has got a very big population, so its burden of vision is also big. There are many national levels survey done to quantify the problems. India was the first country in the world to launch the National Program for Control of Blindness in 1976 with the goal of reducing blindness prevalence to 0.3% by the year 2020.⁽¹⁾ Cataract was the leading cause (57.6%) and glaucoma was the second cause (16.7%) for blindness. The prevalence of low vision was 2.9% (95% CI 2.4-3.4%) and visual impairment (blindness + low vision) was 3.8% (95% CI 3.2-4.4%). The primary causes for low vision were refractive errors (68%) and cataract (22%).⁽²⁾ Govt. of India has taken several initiatives for decrease the burden of blindness like: Vit A Prophylaxis programme 1970, National Programme for control of blindness 1976, vision 2020 in 1999.⁽³⁾

Despite the above efforts the prevalence of blindness is unacceptably high till now. Because services alone do not care the problem until and unless awareness and knowledge of the general population is improved. Under this situation present study was conducted with the following objectives:

OBJECTIVES:

1. To assess the awareness and knowledge of common eye diseases among the study population.
2. To determine the sources of knowledge of eye diseases among the study subjects.

MATERIALS & METHODS:

It was a cross-sectional study carried out in a rural area of Singur Block, Hooghly District, West Bengal. The area is inhabited by people of poor socioeconomic status. Ramchandra Pure village is under the service area of rural Health Unit & Training Centre (RHUTC) Singur and was selected by SRS method. Again, by SRS methods 567 residents of 15 – 65 years age group who were given verbal consent for the study, were registered as a study population. Data were collected by interview method using pre-design, pre-tested semi-structure questionnaire on common eye diseases like Cataract, Refractive error, Glaucoma and Night Blindness. After consecutive 6-day visit 567 residents of 15 – 65 years age group were interviewed.

Collected data were then analysed and statistical test were done with the help of Microsoft Excel & Epi-info (3.5.1) software. Test for the statistical significance was applied by using χ^2 test for analysing the difference between the two proportions ($P < 0.05$ was considered significant).

DISCUSSION:

Subjects aged ≥ 35 years were significantly more aware of all the eye diseases assessed except night blindness. This is important because in the same population all cause of blindness were in people ≥ 30 years of age. As expected, education played a significant role in the awareness of these eye disease. Study conducted by Waleed A. Al Rashed et al⁽⁴⁾ shows majority of participants were married and government employees and had university education.

The major source of awareness for cataract, Refractive error (Presbyopia/Chalse), Glaucoma, and Night Blindness was a family member/friends relative suffering from that particular eye disease. Study conducted by Waleed A. Al Rashed et al⁽⁴⁾ shows Information from other community members, the internet, and social media was the leading sources from which participants obtained knowledge on eye diseases and eye care.

Male study population were more aware regarding common eye diseases study also shows that higher the socio-economic status more aware of eye diseases. Study conducted by Waleed A. Al Rashed et al⁽⁴⁾ shows Although female adults on average had better knowledge regarding eye diseases and eye care. Muslims were more likely to be aware of all common eye disease except cataract. The reason for this is not clear, but it is of significance since the majority of study population is Hindu.

Even through the level of awareness of cataract was reasonable, knowledge of cataract was poor, of those who were aware of cataract 35% defined it is a white spot in the eye 32% who defined cataract as a white membrane growing over the eye. Most subjects were aware that the treatment for cataract is Surgery and that it restores sight.

Awareness of Glaucoma among the study population was very poor. For Glaucoma, early detection and prevention may present progression of the disease, but because of its 'silent' nature early detection of glaucoma is difficult unless the patient undergoes an eye examination. Hence, an increase in the level of awareness of glaucoma in our population is essential if more people are to be screened for the condition.

Awareness of night blindness was reasonable in the study population but knowledge was poor. Majority of the subjects reported that most common cause of night blindness in childhood is Vit A deficiency. Near about 32% of population did not know whether night blindness during childhood was preventable or not.

Awareness of Refractive error (Presbyopia/chalse) among the study population was also very poor. They did not know how it occurs and what are the treatment.

CONCLUSIONS:

In conclusion, data suggest that there is an urgent need for health education in the study population in order to increase their level of awareness and knowledge about common eye diseases. This is particularly important in a developing country such as India, with considerable investment in tertiary eye care. Increasing the awareness and knowledge of common eye diseases could lead to an increase in understanding and acceptance of the importance of routine eye examination for early detection and treatment of such conditions, thereby reducing visual impairment and loss of eye care. These data could help to develop effective health education and information programmes to reduce visual impairment among the study population.

Conflicts of Interest:

The authors declare that there is no conflict of interest regarding the publication of this article.

Acknowledgement:

Authors wish to convey their gratitude to Professor & Head, Dept. of PSM, All India Institute of Hygiene and Public Health, Kolkata and all the 15-65 years aged people who participated in the survey.

RESULTS:

Table – 1: Distribution of study population according to awareness of common eye diseases: (n=567) *

Awareness of Common Eye Diseases	No. of Responses (%)
Cataract	373 (65.8)
Refractive error (Presbyopia / Chalse)	82 (14.5)
Glaucoma	55 (9.7)
Night Blindness	342 (60.3)

***Multiple Responses**

Table – 2: Responses among those who were aware of Cataract (n=373)

Response	No. of Responses (%)
1>What is Cataract? • A white spot in the eye • A white membrane growing over the eye • An age-related process where lens becomes opaque • Do not know anything	131 (35.12) 121(32.44) 99(26.54) 22(5.90)
2> How did you come to know about cataract? • Doctor/ ophthalmologist/optometrist/optician • Family member/friends/Relative suffering from it • Family member/Friends/Relative not suffering from it. • Others (eye camp, TV magazine etc)	58 (15.55) 160(42.90) 129(34.58) 26(6.97)
3> How is it treated? • By Medicine • By surgery • Others (spectacles, nutritious diet etc) • Do not know	51 (13.67) 237 (63.54) 68 (18.23) 17 (4.56)
4> Is it possible to get back vision from cataract blindness? • Yes • No • Do not know	243 (65.15) 58 (15.55) 72 (19.30)

Table – 3: Responses among those who were aware of Refractive error (Presbyopia / Chalse) (n=82)

Response	No. of Responses (%)
1> What is the common cause of Presbyopia? • Nature timely dimness of vision above 35-40yrs of age • Due to excessive near work in dim light • Due to nutritional deficiency • Do not know anything	54 (65.85) 18 (21.95) 8 (9.76) 2 (2.44)
2> How did you come to know about Presbyopia? • Doctor/ophthalmologist/optometrist/optician • Family member/Friend/Relative suffering from it • Family member/Friends/ Relative not suffering from it. • Others (Eye camp, TV, Magazine etc)	28 (34.15) 43 (52.44) 8 (9.76) 3 (3.65)

3> How is it treated? • By Medicine • By Spectacles • Others (surgery, nutritious diet etc) • Do not know	10 (12.20) 51 (62.20) 19 (23.17) 2 (2.43)
4> Is it possible to get back vision from Presbyopia? • Yes • No • Do not know	19 (23.17) 57 (69.51) 6 (7.32)

Table – 4: Responses among those who were aware of Glaucoma (n=55)

Response	No. of Responses (%)
1> What is Glaucoma? • High pressure in the eye • A disease where the nerve of the eye becomes weak • An age-related process leading to decrease in vision • Do not know any thing	27 (49.09) 21 (38.18) 6 (10.91) 1 (1.82)
2> How did you come to know about Glaucoma? • Doctor/ophthalmologist/optometrist/optician • Family member/Friend/Relative suffering from it • Family member/Friends/ Relative not suffering from it. • Others (Eye camp, TV, Magazine etc)	8 (14.55) 30 (54.55) 11 (20.00) 6 (10.90)
3> Is visual loss due to Glaucoma Permanent or Reversible? • Permanent • Reversible • Do not know	24 (43.64) 23 (41.82) 8 (14.54)
4> How is it treated? • By Medicine • By Surgery • Others (spectacles, nutritious diets • Do not know	21 (38.18) 20 (36.36) 9 (16.36) 5 (9.10)

Table – 5: Responses Among Those Who Were Aware Of Night Blindness (n=342)

Response	No. of Responses (%)
1> What is the common cause of Night Blindness during childhood? • Only vit A deficiency • Deficiency of major nutrients in diet • Others (Malnutrition, Diarrhoea)Do not know any thing	154 (45.03) 68 (19.88) 107 (31.29) 13 (3.80)
2> How did you come to know about Night Blindness? • Doctor/ophthalmologist/optometrist/optician • Family member/Friend/Relative suffering from it • Family member/Friends/ Relative not suffering from it. • Others (Eye camp, TV, Magazine etc)	71 (20.76) 105 (30.70) 32 (9.36) 134 (39.18)
3> How is it treated? • Vit A supplementation • Nutritious diet • Other (Medicine, spectacle etc) • Do not know	161 (47.08) 102 (29.82) 71 (20.76) 8 (2.34)
4> Can night blindness during childhood be prevented? • Yes • No • Do not know	170 (49.71) 109 (31.87) 63 (18.42)

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