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AWARENESS OF EYE DISEASES AND SATISFACTION FOR EYE CARE SERVICES IN INDORE, INDIA

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ABSTRACT

Introduction: Objective of the study was to assess the knowledge of blinding eye diseases and the satisfaction for the eye services at government hospitals among community.

Methods: This was a descriptive study 200 people of more than 18 years of age were given a close ended questionnaire. Their self reported responses were collected. Questions were related to their knowledge of eye disorders and their attitude toward eye related issues.

Results: The knowledge about cataract was found to be good in more than 75% of respondents. 46% of the respondents were satisfied with type of eye services provided in government hospitals. Difference of awareness between younger (<40 years) and older (>40 years) was found significant (P <0.05) for surgical treatment for cataract, younger children need examination and spectacle is necessary for refractive error in children. There was significant (P <0.05) difference found between males and females for knowledge about management of glaucoma, need of eye examination in younger children, continuous use of spectacle in children refractive error and treatment of squint.

Conclusion: Awareness regarding the common eye diseases and their treatment and utilization of eye care facilities needs to be enhanced for early detection and treatment thereby reducing the load of preventable blindness in our country.

Keywords: Preventable blindness; eye diseases; awareness; eye care services

INTRODUCTION

Preventable blindness is an important issue in public health for developing nations around the world, especially in India [1]. In an effort to address the nation's untreated eye conditions, the WHO and the International Agency for Prevention of Blindness (IAPB) partnered with the Indian government to create India's VISION 2020: Right to Sight [2]. Blindness and vision impairment affects not only the quality of life of an individual, but also has implications for their educational and employment opportunities. We can reduce this burden of preventable blindness to great extent by increasing the level of knowledge and awareness of the common eye diseases so that people seek timely eye care. Continued efforts in improving the awareness and knowledge about the major eye diseases will also help improve understanding of the problem and assist in developing

newer strategies. The utilization of available eye care services is mandatory for reduction of the burden of visual impairment worldwide and therefore has to be monitored too. To strengthen public awareness campaigns, we studied the awareness and knowledge of the common causes of blindness, need for child eye screening and special training of visually disabled children and also the level of satisfaction of eye care services at government hospitals.

METHODS

This study was a descriptive case series. Approval from Institutional Ethical Committee was taken before starting of this study. The target population comprised of persons more than 18 years of age who attended the screening eye-camp organized at the Government school Rau, Indore were requested to participate in this study. Three ophthalmic assistants explained the objectives of the study to the visitors and those who consented for the study were enrolled. They were given a closed ended questionnaire which was prepared in Hindi. The questionnaire comprised of 10 questions. The questionnaire contained questions on socio- demographic profile, knowledge of common eye diseases and their treatment and utilization of eye care services. The ophthalmic assistants helped those participants who could not follow the questionnaire but answer to the question was left to the participants themselves. Data were entered in Microsoft Office 2007- Excel sheet and frequencies, z test of proportion, percentage proportion of each response and for subgroups calculated.

RESULTS

Two hundred participants were enrolled in the study and their ages ranged from 18 years to 87years (mean = 49.2 ± 16.3 years). Males were 57.55% and remaining were female participants.

Table 1: distribution of Participants according to Age and Gender

Age Group	Male n=106 (%)	Female n=94 (%)
18 to 25 years	19 (17.92)	25 (26.59)
26 to 40 years	28 (26.41)	34 (35.41)
41 to 60 years	36 (33.96)	24 (25.0)
61 years and more	23 (21.69)	12 (12.5)

Knowledge about various eye diseases causing blindness and utilization of services increased with increase in level of education exception seen in cataract surgery that high school educated persons more aware than graduates.

Table 2: Knowledge and attitude of participants about eye diseases and according to level of education No. (%)

Question (n=200)	Yes (%)	No (%)	I don't know(%)	Illiterate (%)	Primary (%)	High School (%)	Graduate or more (%)
Surgical treatment is necessary for cataract	154 (77.0)	33 (16.5)	13 (6.5)	3 (1.93)	25 (16.13)	72 (46.45)	55 (35.48)
Diabetes causes ocular problems and blindness	107 (53.5)	79 (39.5)	14 (7)	1 (0.93)	7 (6.54)	34 (31.78)	65 (60.75)
Glaucoma is a blinding disease, and needs lifelong medication or surgery	82 (41)	107 (53.5)	11 (5.5)	1 (1.21)	2 (2.43)	29 (35.37)	50 (60.98)
Minor eye problems can be treated at home	107 (53.5)	90 (45)	3 (1.5)	8 (8.89)	16 (17.78)	20 (22.22)	46 (51.11)
Children 5 years or younger need eye examination	92 (46)	106 (53)	2 (1)	9 (9.78)	18 (19.56)	19 (20.65)	46 (50.00)
Spectacle is necessary for child ren with a refractive error	136 (68)	59 (29.5)	5 (2.5)	11 (8.09)	34 (25.0)	32 (23.53)	59 (43.38)
No treatment is required for squint	99 (49.5)	94 (47)	7 (3.5)	15 (15.96)	17 (18.09)	21 (22.34)	41 (43.61)
Visually disabled need special training and care	71 (35.5)	124 (62)	5 (2.5)	10 (14.08)	15 (21.13)	17 (23.94)	29 (40.84)
I have heard about Age Related Macular Degeneration	30 (15)	144 (72)	4 (2)	1 (3.33)	1 (3.33)	14 (46.67)	14 (46.67)
Eye care services at the got hospitals is satisfactory	92 (46)	104 (52)	4 (2)	14 (15.22)	23 (25.0)	23 (25.0)	32 (34.78)

Table 3: Comparative analysis of correct knowledge with positive attitude and eye care services utilization satisfaction by age group and gender

Topic	<40 year (n=101)	≥40 years (n=99)	P value*	Male (n=106)	Female (n=94)	P value
Surgical therapy is necessary for cataract	88 (87.12)	66 (66.67)	<0.001	85 (80.18)	69 (73.40)	0.33
Diabetes causes ocular problems & blindness	61 (60.39)	46 (46.47)	0.067	63 (59.43)	44 (46.8)	0.100
Glaucoma is a blinding disease, and needs lifelong medication or surgery	48 (47.52)	34 (34.34)	0.080	52 (49.05)	30 (31.91)	0.021
Minor eye problems can be treated at home	41 (40.59)	39 (39.39)	0.977	55 (51.89)	35 (37.23)	0.053
Children 5 years or younger need eye examination	65 (64.35)	27 (27.27)	0.000	57 (53.77)	35 (37.23)	0.028
Spectacle is necessary for child ren with a refractive error	80 (79.20)	56 (56.57)	0.001	84 (79.24)	52 (55.31)	0.000
No treatment is required for squint	51 (50.49)	43 (43.43)	0.391	65 (61.32)	29 (30.85)	0.000
Visually disabled need special training and care	31 (30.69)	40 (40.40)	0.198	43 (40.56)	28 (29.78)	0.149
I have heard about Age Related Macular Degeneration	14 (13.86)	16 (16.16)	0.797	19 (17.92)	11 (11.70)	0.302
Eye care services at the got hospitals is satisfactory	45 (44.55)	47 (47.47)	0.785	55 (51.88)	37 (39.36)	0.103

P value calculated by using z test of proportion

Younger were more aware for eye related issues but for special training, ARMD and eye care services they were less aware than aged but difference of awareness was significant (P <0.05) only for surgical treatment for cataract, younger children need examination and spectacle is necessary for refractive error in children.

Male were more aware then females in areas related to eye care, even their satisfaction level was more for eye care services. But there was significant (P <0.05) difference found in knowledge for management of glaucoma, need of eye examination in younger children, continuous use of spectacle in children refractive error and treatment of squint.

DISCUSSION

The main objective of this study was to provide information on the level of knowledge about the common eye diseases and their treatment and utilization of eye care services amongst the general urban population attending the eye camp.

More than three fourths of the study group knew that cataract needs surgical treatment. These results reflect positively on existing efforts to increase cataract awareness. A study in Brazil to evaluate the attitude for senile cataract also suggested that 85% of the subjects credited the sight restoration to cataract surgery[3]. South Indian population study showed that 69.8%population had awareness of cataract and its management.[4] 71.9% of subjects accurately reported that a cataract is treated by surgery, in a study in Bihar[5]. 73.1% of the subjects were aware of cataract, in Andhra Pradesh Eye Disease Study[6]. A study on Omani population revealed 75.6% population was aware about cataract in management[7]. 85% of population of Takeo province had heard about cataract but only 18.6% of them knew about its surgical mode of treatment[8].

Awareness about diabetes causing blinding eye complications was found in 53.5 % of the participants. 28.8% subjects were aware that diabetes can cause impaired vision (considered as awareness of diabetic retinopathy) in APEDS[6].The Omani study showed that 70% of people knew about diabetic eye disease[7].The Takeo Province study suggested that only 8% of the participants had heard about the diabetes and its blinding eye complications.[8] A study in Australia suggested that 78.5% of people without diabetes knew that diabetes could be sight-threatening[9].

Knowledge about glaucoma and its treatment was seen in only in 41% of the participants. 60.3% of participants did not know about glaucoma in a study in Bihar[5]. Andhra Pradesh Eye Disease Study (APEDS) showed that awareness of glaucoma was very limited in rural populations in Southern India[6].The Barbados Eye Study (BES) found that of participants with primary open angle glaucoma, 51% were unaware of the term or nature of the disease[10].

More than half of participants consented using traditional home treatment for treating minor problems of eye. Roughly one quarter of the study

participants (25.7%) in a study from Bihar, reported using eye drops prescribed by someone other than an eye doctor[5]. However, evidence based information on the positive impact of traditional medicine for eye conditions are needed. Till such information is not available, the community should be educated to avoid using traditional medicines for their eye ailments.

46% participants agreed that children below 5 years require eye examination while 68% agreed that children with refractive error need spectacle wear. 47% participants had knowledge that squint needs treatment. Knowledge about the treatment of squint was poorer in female participants (30.85%) as compared to male participants(61.32%) and in older participants as compared to younger participants.

Visually disabled need special training and care was agreed by 35.5% participants of the study. Male participants (40.56%) had better knowledge regarding this as compared to female participants (29.78%). 89% participants in the Omani study agreed for special training in visually challenged children. Similar study in Takeo province was done in which 52% participants reported that children with visual impairment could go to school[7].

26% participants had heard about the Age Related Macular Disease (ARMD). This lack of knowledge is consistent with other studies conducted in Germany and the United States[11,12]. Education played a significant role in the awareness of these eye diseases. Age and gender variation in the responses was not significant.

CONCLUSION

Although most adults are familiar with common eye disease, they lack key information that can facilitate early detection and treatment. There is a critical need to educate the public about glaucoma, diabetic eye disease, AMD, refractive errors, low vision, and the asymptomatic nature of these conditions. Some specified segments that could be considered as a focus for educational efforts to increase awareness that there are no warning symptoms for eye diseases include children, middle-aged adults caring for their elderly parents and older adults. Increasing patient awareness of prevalent eye diseases and treatments could lead to an increase in patient acceptance of the importance of routine eye examinations for timely identification and treatment of many eye conditions.

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