

AWARENESS OF EYE HEALTH CARE (A TALE OF TWO CITIES OF PUNJAB)

NOOR UL AIN¹, EIMAN AYESHA¹, WARDAH KAFEEL², TAYYABA GUL MALIK³

¹Faisalabad Medical University, ²Ameer-ud-din Medical College, Lahore,

³Rashid Latif Medical College, Lahore.

ABSTRACT

Objective: To find out eye health care awareness among different age and educational groups in urban population of Lahore and Faisalabad.

Methods: It was descriptive observational study conducted at Faisalabad Medical University and Ameer ud Din Medical College during 2019. Sampling technique was non-probability convenience sampling. Six hundred and seventy-nine persons of both genders were enrolled from Lahore and Faisalabad. A questionnaire was prepared and presented to recruited individuals. The questionnaire included general knowledge about eye health care and common ocular diseases. Name, age, gender and educational status were included in the questionnaire along with the specific questions related with ocular health. Data was analyzed by dividing the participants into two groups (A and B) according to age and then into three groups (C, D, E) according to educational status.

Results: There were 679 individuals, 536 between 15 and 25 years of age and 143 were 26 years and above. There were 194 males and 485 females. 24% were undergraduates, 56% were graduates and 20 % had done post-graduation. Most of the participants had correct knowledge regarding cataract but not about glaucoma and ocular complications of diabetes. Cataract and red eye were the commonest eye diseases according to majority of the individuals. Majority of the individuals recommended use of sunglasses as the best protective measure against eye diseases.

Conclusion: Our urban population in two major cities of Punjab lacks eye health care awareness and the condition is only slightly better in the graduates and post-graduates as compared to the undergraduates.

Key words: Cataract, Glaucoma, Pakistan, Safety glasses.

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*Correspondence to: Tayyaba Gul Malik,
Professor,
Department of Ophthalmology, Rashid Latif Medical
College, Lahore, Pakistan.*

Email: tayyabam@yahoo.com

INTRODUCTION

The first step in healthcare awareness is to know how much a target population already knows the subject. Based on this foundation, further health education awareness policies are made. WHO launched “The right to sight” initiative to reduce worldwide blindness and visual impairment caused by different diseases by the year 2020.¹

The three main strategies of this initiative are; increase awareness, partnership with organizations and development of human resources². The leading cause of preventable blindness is cataract but lack of knowledge about the disease is among one of the number of hurdles faced by developing countries to cope with this disease. Perception and understanding of the affected population about common eye diseases like cataract, glaucoma and diabetic eye disease helps in taking steps towards prevention and treatment plans.

This study was designed to find out basic knowledge about preventable eye diseases in different age and educational groups of Lahore and Faisalabad.

METHODS

It was a descriptive observational study, done in urban population of Faisalabad and Lahore during 2019. Sample collection was done through non-probability convenience sampling method. 679 persons of both genders were enrolled. Inclusion criteria was all subjects, male or female, above 15 years of age and education status falling in any one of the three categories (undergraduate, graduate and post graduate). Persons less than 15 years, illiterate individuals and education status of less than tenth grade were excluded from the study. A questionnaire was prepared and presented to recruited individuals (table 2 and 3). The questionnaire included general knowledge about eye health care and common ocular diseases. Name, age, gender and educational status were included in the questionnaire along with the specific questions related with ocular health.

All participants were free to respond whenever they were at their convenience and they had available time to respond. The privacy of the subjects was secured. The persons included in the study gave their consent and their voluntary participation was ensured. Data was tabulated in the excel sheet and analyzed by dividing the participants into two groups (A and B) according to age and then into three groups (C, D, E) according to educational status. The details of recruited individuals are shown in table 1. Data was compiled using descriptive statistics.

RESULTS

Demographic data with percentages are presented in table 1. When eye health care awareness was compared between group A (15 to 25 years age) and group B (above 25 years), it was seen that there was

not much difference between the two groups. Most of the responses were correct regarding cataract in both groups. Correct answers were given by 50% in group A and 57% in group B. Majority of the individuals in both groups (62% in group A and 69% in group B) were unaware of any effect of diabetes on eyes. Most of the participants of the study were of the opinion that use of sunglasses can prevent them from eye diseases. For further details, refer to table 2.

When we compared the responses among different educational groups, we found correct answers about cataract and glaucoma in majority of the graduates and post graduates. Regarding effect of diabetes on eyes, only postgraduate individuals had better understanding than the other two groups. For details, refer to table 3.

Table no. 1: Demographic data of the participating individuals

Demographic data			
Characteristics	Groups	Number	Percentage
Age	A= 15-25 years	536	78.94%
	B= 26 and above	143	21.06%
Gender	Male	194	28.57%
	Female	485	71.43%
Educational status	Undergraduate	162	23.86%
	Graduates	382	56.26%
	Masters	135	19.88%
Marital status	Single	524	77.17%
	Married	155	22.83%

Table no. 2: Showing response to questions by the two groups according to age (A and B)

Question		Response	
		Group A n= 536	Group B n = 143
Do you know what does sufaid motiya (سفید موتیا) or cataract actually mean?	Correct	330(61.57%)	103(72.03%)
	Incorrect	206(38.43%)	40(27.97%)
Do you know what is kala motiya (کالا موتیا) or glaucoma and how much dangerous it is for vision?	Correct	270(50.37%)	82(57.34%)
	Incorrect	266(49.63%)	61(42.66%)
Does diabetes has any effect on vision	Correct	200(37.31%)	44(30.77%)
	Incorrect	336(62.69%)	99(69.23%)
What is the commonest eye disease in Pakistan	Glaucoma	34(6.34%)	22(15.38%)
	Cataract	184(34.33%)	59(41.26%)
	Red eye	220(41.04%)	32(22.38%)
	Do not know	98(18.28%)	30(20.98%)
What measures can protect eyes from diseases?	Diet	70(13.06%)	8(5.59%)
	Sunglasses	144(26.87%)	62(43.36%)
	Hygiene	92(17.16%)	26(18.18%)
	Do not know	120(22.39%)	32(22.38%)
	Decreasing use of mobile Phone	34(6.34%)	5(3.50%)
	Regular check up	76(14.18%)	10(6.99%)

Table no. 3: Response to questionnaire by different groups according to education. Effect of education on ocular health awareness

question		Response		
		Group C (under-graduates) n= 162	Group D (graduates) n = 382	Group E (masters) n= 135
Do you know what does sufaid motiya (سفید موتیا) or cataract actually mean?	Correct	90(55.56%)	256(67.02%)	87(64.44%)
	Incorrect	72(44.44%)	126(32.98%)	48(35.56%)
Do you know what is kala motiya (کالا موتیا) or glaucoma and how much dangerous it is for vision?	Correct	75(46.30%)	316(82.72%)	87(64.44%)
	Incorrect	87(53.70%)	66(17.28%)	48(35.56%)
Does diabetes have any effect on vision	Correct	49(30.25%)	127(33.25%)	68(50.37%)
	Incorrect	113(69.75%)	255(66.75%)	67(49.63%)
What is the commonest eye disease in Pakistan?	Glaucoma	8(4.94%)	37(9.69%)	11(8.15%)
	Cataract	67(41.36%)	130(34.03%)	46(34.07%)
	Red eye	71(43.83%)	147(38.48%)	34(25.19%)
	Do not know	16(9.88%)	68(17.80%)	44(32.59%)
What measures can protect eyes from diseases?	Diet	14(8.64%)	62(16.23%)	2(1.48%)
	Sunglasses	56(34.57%)	106(27.75%)	44(32.59%)
	Eye hygiene	27(16.67%)	69(18.06%)	22(16.30%)
	Do not know	46(28.40%)	79(20.68%)	27(20.00%)
	Decreasing use of mobile phone	6(3.70%)	27(7.07%)	6(4.44%)
	Regular check up	13(8.02%)	39(10.21%)	34(25.19%)

DISCUSSION AND CONCLUSION

According to WHO there are 258 million visually impaired persons of all age groups in the world. To fight this problem, it is of utmost importance to have an understanding of the existing knowledge of the target population. Several studies have been conducted in different countries to find out the basic knowledge about many common ocular diseases. Our study is a similar effort in an urban city of Pakistan.

Cataract is the most common correctable blinding disease in majority of the developing countries including Pakistan. In our sample majority of the participants (more than 50 % in each group) had basic knowledge and awareness about the cataract. Glaucoma awareness was similar in group A and B but graduates and postgraduates had better acquaintance with glaucoma as compared to the undergraduate persons. In Nepal, knowledge about ocular diseases was 49.6% for cataract and 29% for glaucoma. It was also found that level of education was directly associated with awareness of ocular diseases³. According to a recent report from a hilly region of Nepal, awareness of cataract and glaucoma was 74.6% and 17.4% respectively. It was also found that knowledge about the ocular health care was better in higher caste group⁴.

In Bangladesh, 90% participants of a study had heard of cataract and only 7% were aware of glaucoma. Increasing age, lack of schooling and lower

socioeconomic status were associated with poor awareness of ocular diseases⁵.

In an Iranian study, awareness regarding cataract, glaucoma and diabetic retinopathy was 82.9%, 46.6% and 86.2% respectively. In Pakistan, awareness about diabetic retinopathy was very low⁶ as compared to Iranian study. It was also reported in the same study that there was no relation of knowledge with the education status, which contradicts our findings. In Turkey the results were similar to our study in which understanding about the ocular diseases was low in people of lower educational status⁷. In a recent research in Egypt, educational status was found positively related with the knowledge about ocular diseases⁸.

In Saudi Arabia, the participants had a knowledge score of $\geq 50\%$ about different eye diseases⁹. In another Saudi study, 64% participants had good knowledge of diabetic complications¹⁰.

According to WHO, in urban population of Southern India, awareness of cataract was 69.8% (almost equal to our study) but that of diabetic retinopathy was low 27.0% and lowest about glaucoma (2.3%)¹¹. Another study was conducted in India according to which only 11.62% participants were aware of cataract¹². In China educational status of a rural population was found positively related with the knowledge of Glaucoma¹³ which is a blinding disease. China has many health awareness programs and one of these is the mobile based glaucoma awareness which has

shown promising results.¹⁴ If we look at the Ethiopian population, the awareness about ocular diseases was 2.4%¹⁵.

Locally speaking, another study was done in Lahore which revealed only 4.7% of general population had basic knowledge about glaucoma¹⁶.

Although understanding of common eye diseases in our country is not very different from most of the developing countries of the world including our neighbor countries, there is a dire need for developing programs to make our population aware of eye care. As there is a well-known saying “prevention is better than cure”, prevention of ocular diseases by knowledge campaign in different urban as well as rural parts of Pakistan can be a milestone in reducing the annual cost of eye care. Importance of regular eye examination for early detection and treatment of eye diseases can only be highlighted through proper education.^{17,18}

As the sample size was small in our study and it was done in only two cities, the results cannot be generalized to the whole Pakistani population. Even if this is the state of affairs in the biggest city of biggest province of Pakistan, the situation can be predicted in the rural and far peripheral areas where education and other health facilities are below standard.

The next step is to find out the hurdles in the way to imparting basic knowledge about eye care. Population overgrowth, unequal distribution of funds in the peripheral areas of cities, illiteracy, poverty, cultural and traditional beliefs, ignorance and lack of government support in making health a priority are major hurdles faced by healthcare personnel in dissipation of basic education about general health and specifically ocular health.

Certain steps at the level of nurses, medical students, media, schools and colleges can be taken to give knowhow of common eye diseases and their prevention.¹⁹ Importance of hand washing and good nutrition should be taught in seminars, workshops, health talks at schools, colleges and peripheral areas.²⁰ This is not only a responsibility of health department rather education department should also work in collaboration to ensure success of eye health care programs.

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AUTHORS CONTRIBUTION

NUA, AE, KW: Data acquisition, literature research, final manuscript review

MTG: Manuscript writing, literature research, final manuscript review