Evaluation of Knowledge, Attitude and Practices on Common Adult Eye Disorders Among Patients in a Tertiary Care Hospital

Jayawardana H.D.P., MBBS*

*Faculty of Medicine, University of Colombo, Sri Lanka.

Introduction

Simply, vision means the ability to see and it is a very important sensory modality to maintain a good quality of life. In terms of the worldwide prevalence of visual impairment, WHO recent statistics stated that 285 million people are estimated to be suffering from impairment globally. Out of that, 39 million are blind and 246 million have low vision.¹ Also, 65% of people impaired and 82% of all blind people are 50 years or old.¹ Visual problems are prevalent on a much greater scale in developing countries than in developed countries. According to numbers from the WHO, 90% of blind people live in the developing world.¹

Looking at the global distribution of avoidable blindness based on the population in each of the WHO regions, it is 28% in South East Asia, 26% in the Western Pacific. 16.6% in the African region.¹ When further considering the data or southeast Asian region 6.9 people per million population are blind.¹

Several disease conditions affecting the eye are responsible as the major causes of visual impairment. They are Cataract, Refractory errors, Age-related macular degeneration, glaucoma, and diabetic retinopathy. Nevertheless, 80% of visual impairment is avoidable.² The WHO estimates that by 2025,300 million people will suffer from diabetes across the globe, it was 177 million in year 2000.³ The rising incidence of diabetes will eventually lead to a dramatic increase in the incidence of diabetic retinopathy.³

The objectives of this study are to assess the knowledge, attitudes, and practices towards common eye disorders and determine factors leading to late presentation to medical care with impending blindness among over 40-year-old patients attending to general medicine and surgical clinics of the NHSL.

Methods and Materials

The cross-sectional study was conducted on 106 patients age 40 or above who attended to the general medical and surgical clinics of the NHSL. The similar number of patients from medical and surgical clinics (53 patients each) were interviewed by the interviewer-administered questionnaire. Questions were asked to ascertain each participant's socio-demographic data, knowledge on common age-related eye disorders namely refractory errors, cataract, glaucoma, and diabetic retinopathy. Questions were also asked to determine their attitudes to eye care practices and treatments. All respondents were asked their frequency of eye check-ups and the most commonly attending place to receive eye check-ups. Mentally retarded patients and the bystanders of the patients were excluded.

Descriptive and inferential statistical methods were utilized for data analysis. For the continuous variables I calculated: mean, median, mode, standard deviation, and for the categorical variables: frequencies and percentages. The *Chi-Square test* was used to compare the variables. The values of *P* were calculated by comparison and the value of <0.05 was considered significant. All data were entered into *Microsoft Excel 2013 software* and processed with *IBM SPSS Statistic 26 software*.

Results

A total of 106 participants were assessed. From the results 96.2%, heard of cataracts, 50.9% heard of glaucoma, and 74.5% heard diabetic retinopathy. In the knowledge assessment, 43.6% were found to be having good knowledge. Age group between 40 to 58 years ($P=0.01$), a higher level of education up to G.C.E O/L or above ($P=0.02$), a higher level of income ($P=0.004$), and status of employment ($P=0.024$) appeared to be having a good knowledge and the associations were significant. People who have accessed information from medical personnel ($P=0.025$) and mass media ($P=0.010$) also had a statistically significant higher knowledge score. People with good knowledge of eye diseases had positive attitudes (89.1%) and positive practices in contrast to people with poor knowledge and these associations were statistically significant ($P=0.018$).

Table 1. Attitude Towards Eye Care.

	Agree	Disagree	Don't Know
Frequent eye checkup.	105 (99.1%)	0	1 (0.9%)
Referring only an optician when changing spectacles.	22 (20.8%)	65 (61.3%)	1 (17.9%)
Mild changes in vision in elderly can be ignored.	16 (15.1%)	81 (76.4%)	9 (8.5%)
Cataract surgery has a good outcome.	94 (88.4%)	0	12 (11.3%)
Rush to the doctor when there is mild symptoms related to the vision	83 (78.3%)	19 (17.9%)	4 (3.8%)

Discussion

This study population is probably a representative of people who are suffering from age-related eye disorders or people who are at risk of getting them. When considering the results of the study done in an urban population of Hyderabad, India in 2001 among 1859 participants of over age 15, awareness for cataract was 69.8%, for glaucoma was 2.3% and for diabetic retinopathy was 27.0%.⁴ When comparing these results with results of this study it is very clear that the levels of awareness of all three eye disorders are greater among my population. Especially concerning glaucoma, there is about 25 fold higher awareness in this study population than the Hyderabad research population. Also, the main discrepancy between this study and the Hyderabad study is that the former was done among over 40 years people whereas the latter was done among over 15 years people. Further, one can conclude that this difference could be created by the time gap of two studies as the Hyderabad study was done about 20 years back, therefore over time the public awareness on common eye disorders have been increasing.

An Australian study has revealed awareness of cataract was 98% that is closer to the value of 96.2% and for glaucoma, it was 93% that is a higher percentage than the result of my study, but interestingly in that same study from participants who were aware of cataract and glaucoma only 20% and 29% respectively have shown to have some knowledge on each disease respectively.⁵ Also Attebo. et. al have found a significant association between the knowledge of eye diseases with educational level and occupational prestige that is compatible with my findings.⁵

A study done in the Hong Kong Chinese population of age 40 or above revealed that even though high as 90% of participants were aware of cataract, over 40% of subjects did not know that surgery was an appropriate treatment for cataract.⁶ But in contrast to that majority of 88.4% participants of my study population believe that cataract surgery has a good outcome in improving vision. When analyzing the association between knowledge of eye disorders and practices related to eye care in the study population, similar results were found in the study done in the Australian population.⁵

Concerning the association between knowledge and attitudes related to eye disorders, the study result was shown a statistically significant association between good knowledge and positive attitudes ($p=0.018$). In contrast to the study done in Australia among the residence of over 40 years of age has shown no interaction between knowledge and positive attitudes to self-care practices related to eye disease.⁵ As the latter study was assessed only the attitudes related to self-care practices that would not be compatible with the attitude assessment, the different result findings can be attributed to that.

Conclusions

- Considerable reduction in awareness on glaucoma compared to cataract and diabetic retinopathy.
- Younger age, higher education level, income, and employment were found to be associated with good knowledge.
- Knowledge should be improved from the current level to achieve good eye care practices.
- Medical personnel and mass media were found to be effective in enhancing public awareness.

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Contact

Email- dilukshaprasad@gmail.com

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