



ISSN: 0975-833X

Available online at <http://www.journalcra.com>

*International Journal of Current Research*  
Vol. 15, Issue, 07, pp.25217-25220, July, 2023  
DOI: <https://doi.org/10.24941/ijcr.45476.07.2023>

INTERNATIONAL JOURNAL  
OF CURRENT RESEARCH

## RESEARCH ARTICLE

### KNOWLEDGE, AWARENESS AND OCCURRENCE OF COMMON EYE PROBLEMS AMONG DIFFERENT PEOPLE VISITED OPD OF OPHTHALMOLOGY DEPARTMENT: A CROSS SECTIONAL STUDY CONDUCTED IN SELECTED HOSPITALS OF COX'S BAZAR CITY, BANGLADESH

\*Mohammed Jahedul Islam, Mithila Chakraborty and Mohammad Noim Uddin

Department of Public Health, Premier University, Chittagong (PUC)

#### ARTICLE INFO

##### Article History:

Received 24<sup>th</sup> April, 2023  
Received in revised form  
19<sup>th</sup> May, 2023  
Accepted 29<sup>th</sup> June, 2023  
Published online 20<sup>th</sup> July, 2023

##### Key words:

OPD, Ophthalmology, Visual impairment,  
Refractive error, Cataract, Blindness.

\*Corresponding Author:  
Mohammed Jahedul Islam

#### ABSTRACT

**Introduction:** Eye problems or visual impairment is now a major public health focus all over the world as the effects of these eye problems. The main purpose of the study is to look into the epidemiological traits and potential for the people who visited the tertiary care (OPD) of certain hospitals' ophthalmology departments about their concern as well as the thought of experiencing common eye disorders. The study will explore the knowledge, awareness and occurrence level of the participants regarding common eye problems. **Aim of the Study:** To look into the epidemiological traits and potential for the people who visited the OPD of certain hospitals' ophthalmology departments about their concern as well as the thought of experiencing common eye disorders. **Methodology:** A cross sectional study has been done with 300 participants from Cox's Bazar City. Random sampling method has been used in this study. **Results & Discussions:** The analysis of the study shows that about half the participants have been diagnosed with different eye problems where cataract and refractive error was found the most prominent eye disease. The knowledge level of the participants was found significantly associated with their socio demographic status. Almost all of the participants have determined that eye problems are 100% curable with drug management and they are aware about these problems. **Conclusion & Recommendation:** The study recommends that further research should be conducted to explore the magnitude, severity and challenges of these eye problems in their daily life.

Copyright©2023, Mohammed Jahedul Islam et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**Citation:** Mohammed Jahedul Islam, Mithila Chakraborty and Mohammad Noim Uddin. 2023. "Knowledge, Awareness and Occurrence of common Eye Problems among different people visited OPD of Ophthalmology Department: A cross sectional study conducted in selected hospitals of Cox's Bazar City, Bangladesh". *International Journal of Current Research*, 15, (07), 25217-25220.

## INTRODUCTION

Eye sight is the most important aspect of our life. There is a famous saying of Ralph Waldo Emerson, "The health of the eye seems to demand a horizon. We are never tired, so long as we can see far enough." The quote depicts the importance of vision health in our life. We can not imagine our life without it. That's why primary care of eye health is being focused all over the world. According to a report of the World Health Organization on vision, at least 2.2 billion people around the world have vision impairment like refractive error, presbyopia, cataract, Glaucoma etc (WHO, 2019). In regards to these vision impairments, The Right to Sight Initiative had launched a project named 'Vision 2020'. The project was designed according to the global need. The main aim of this project was to eliminate avoidable blindness in the world by 2020 (Pizzarello L et al. 2004) and the achievement of the project is also remarkable. According to WHO, worldwide 285 million are suffering from visual impairment where 246 million people have low vision and 39 million people are blind (Morone P, 2013). There is an impact of eye disease or vision health on our quality of life globally. As the eye problems increase, it creates negative health outcomes like disability, reduced capacity for daily activities (Haymes S. A, 2002) etc.

Some global contributors of eye problems are refractive error (27.7 million), cataract (17.7 million), macular degeneration (9.3 million), glaucoma (4.7 million), trachoma (1.3 million) and vitamin A deficiency (0.6 million) (Ono.K, 2010). Most of the time people generally ignore the regular eyecare factors until they face any obvious eye problem or syndromes. This kind of act can be very risky in most cases. Such delays to detection of eye disease can jeopardize the health outcome. This ignorance happens as a result of lack of knowledge and awareness. Early detection and treatment can prevent many common eye diseases which can cause permanent eye disease or vision loss such as cataracts, diabetic retinopathy, glaucoma, age related macular degeneration etc (CDC, 2020). That's why having knowledge and awareness about eye problems has become a primary health care factor for human life. In a developing country like Bangladesh, several eye problems like blindness, low vision, cataract (73.4%) and refractive errors (18.9%) etc. have been found especially among the people of low income population (BOURNE, 2004). According to a report of National Blindness and low vision survey of Bangladesh, 1.53% of adults, whose age is at least 30 years, are blind, 21.6% have low vision (Dineen, 2003) and 22.1% have myopia. In Bangladesh common eye problems are mostly associated with the increasing rate of non communicable diseases like diabetes, risky trends in lifestyles like sedentary lifestyle, modification of diet, smoking etc.

There are some other associated factors observed especially in lower income populations such as insufficient food, substandard housing, limited access to healthcare, education, water and sanitation, poor physical and mental health status etc. (Cattael V., 2001) Cox's Bazar is a city of having a huge part of the low income population. This paper unveiled community based prevalence or occurrence of common eye problems among the people visiting the ophthalmology department and the level of knowledge and awareness about those problems among them through a cross sectional study. The paper will also analyze the overall condition of people suffering from common eye problems, the significance of associated factors of those problems and disease status. Therefore, the findings of this study will provide a strong insight to the public health professionals about the magnitude of common eye problems which will further help them to design or approach community based programs on those problems.

## METHODOLOGY

**Study Population:** A total of 300 respondents participated in this survey. The participants were the visitors of OPD of Ophthalmology department of some selected hospitals of the mentioned area.

**Study Site:** The study was conducted in Cox's Bazar City of Chittagong District, Bangladesh.

**Study Design:** A cross sectional study design was conducted through the data collection by using questionnaires and the data were presented through statistical analysis.

**Sampling method:** The random sampling method has been used in this study to classify the collected data.

**Data Collection method:** The data was collected using a semi-structured, pre-tested and modified questionnaire. A face to face interview has been conducted to answer those questions.

**Inclusion Criteria:** People with given consent who willingly joined or participated in this study. Both male and female were selected as participants.

**Exclusion Criteria:** People who felt unwilling to participate and were not able to provide information due to physical or mental illness or handicapped.

**Data analysis and management:** The collected data was analyzed by using Statistical Package for Social Science software (SPSS) and the associations were determined using logistic regression, p value and chi square. The demography of the participants were presented in graphs, tables, frequencies and percentage.

**Study Period:** The study started from September 2022 and ended in May 2023.

**Ethical Approval:** The ethical approval had been issued and the recommendations had been followed accordingly.

## RESULTS

**Socio-Demographic Table 1:** From the collected data, the participants were mostly between the age group 26-35 years old. Both male (54.6%) and female (44.1%) participated in this survey. From females most of them are housewives (32.6%) and males are occupied in different workstations. Most of them are located in rural areas (50%). Majority (29.3%) of the respondents found SSC completed And majority (54.6%) of them were from Joint families.

**Socio-Demographic Table 2:** From the collected data, majority (46.7%) of the respondents' monthly family income was 10K-20K. Most (92.8%) of the respondents were Muslim by Religion. 67.4% respondents were married found and 47% respondents' number of family members were 2-4 persons. Here 51% respondents were from Flat Land area.

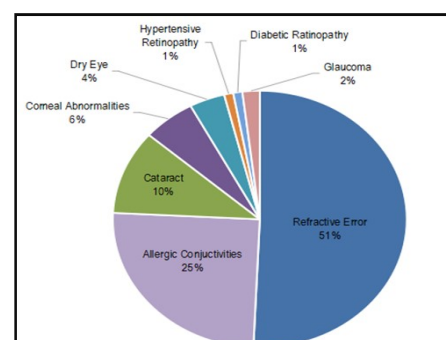
**Table 1a. Socio-Demographic Characteristics**

Socio-Demographic Variables	Options	Frequency	Percentages
Age (Years)	5-15	36	11.8
	16-25	42	13.8
	26-35	90	29.6
	36-45	54	17.8
	46-55	43	14.1
	56-65+	35	11.5
Gender	Male	166	54.6
	Female	134	44.1
Educational Status	Illiterate	39	12.8
	Up to Primary	56	18.4
	Up to SSC	89	29.3
	Up to HSC	69	22.7
	Graduate	35	11.5
	Post Graduate	12	3.9
Occupation	Housewife	99	32.6
	Worker	32	10.5
	Government Employee	9	3.0
	Private Employee	40	13.2
	Businessman	15	4.9
	Farmer	16	5.3
	Retired Employee	4	1.3
	Shopkeeper	15	4.9
	Student	70	23.3
Types of Family	Joint	166	54.6
	Nuclear	134	44.1
Living Place	Urban	43	14.1
	Rural	152	50.0
	Semi-Urban	104	34.2

**Table 1b. Socio-Demographic Characteristics**

Socio-Demographic Variables	Options	Frequency	Percentages
Monthly Family Income (BDT)	<10K	46	15.1
	10K-20K	142	46.7
	>20K	112	36.8
Religion	Muslim	282	92.8
	Hindu	17	5.6
	Christian	1	0.3
	Buddhist	0	0
Marital Status	Single	92	30.3
	Married	205	67.4
Number of Family Member	2-4 person	146	47.0
	5-7 person	123	40.5
	8-10 person	31	10.2
Place of origin	Coast	130	42.8
	Hill Tract	15	4.9
	Flat Land	155	51.0

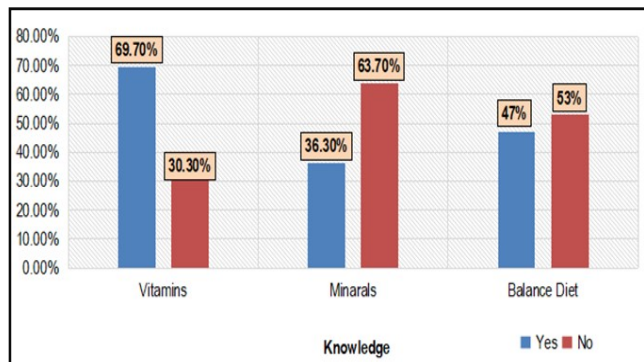
**Participants diagnosed with different Eye Problems:** Figure 1 shows the different eye problems that the participants are diagnosed with. About half of the participants responded that they have been diagnosed with the eye problem 'Refractive error' (51%). The other diagnosed eye problems are Allergic conjunctivitis (25%), Cataract (10%), Corneal Abnormalities (6%), Dry eye (4%), Hypertensive Retinopathy (1%), Diabetic Retinopathy (1%) and Glaucoma (2%) etc.



**Figure 1. Eye problems that participants diagnosed with**

**Participant’s knowledge about food substances and balanced diet:**

The below figure 2 shows the knowledge level of participants about two vital food substances - vitamin and mineral and if they know about balanced diet or not. According to our study, among 300 participants, maximum participants (69.70%) included that they know about vitamins where it is opposite for the substance minerals. Maximum participants (63.70%) informed that they do not know about minerals. When the question asked if they know about balanced diet or not, the response ratio (yes/no) is almost equal. 47% participants said they know about balanced diet where 53% do not know.



**Figure 2. Knowledge about food substance and balance diet**

**Table 2. Knowledge and awareness about eye problems**

Variables	Frequencies	Percentages
Do you think eye problems are curable by drugs and management?		
Yes	290	96.7%
No	10	3.3%
Do you think eye problems are 100% preventable?		
Yes	259	86.3%
No	41	13.7%
Are you aware/ conscious about your eye problem?		
Yes	290	96.7%
No	10	3.3%

**Table 3. Association between education level of participants and their daily food habit**

Socio- Demographic variables	Education level						Total N= 300	Chi- square (χ <sup>2</sup> )	P- value
	Illiterate	Up to Primary	SSC	HSC	Graduate	Post Graduate			
<b>Takes Sufficient fruits and vegetables</b>									
Yes	29	50	80	64	33	12	268	12.387	0.030
No	10	06	09	05	02	0			
<b>Takes regular meal</b>									
Yes	38	54	86	68	33	12	291	1.958	0.855
No	01	02	03	01	02	0			
<b>Takes Sufficient protein</b>									
Yes	9	25	46	25	17	11	133	22.076	0.001
No	30	31	43	44	18	01			
<b>Takes milk daily</b>									
Yes	02	11	21	17	12	03	67	12.636	0.245
No	37	45	67	52	23	09			
<b>Takes sufficient water</b>									
Yes	38	55	88	69	34	12	296	7.932	0.635
No	01	00	01	01	01	00			
<b>Follow Balanced Diet</b>									
Yes	02	5	11	10	10	06	45	43.403	0.000
No	37	52	77	59	24	07			

**Participant’s Awareness about Eye Problem:** Table 2 shows the knowledge level and the participant’s awareness about their eye problems.

Almost 96.7% participants agreed that eye problems are curable by drugs and managements and 86.3% participants think that eye problems are preventable. And most of them (96.7%) are aware and conscious about their eye problem.

Table 3 shows the associations between education level of the participants and their daily food habits or practices. Through the chi-square and p value calculation, it can be noted that some food habits are associated with different education levels of the participants while some are not. Here, the food habit- taking sufficient fruits and vegetables (p value= 0.03), taking sufficient protein (p value= 0.001), following a balanced diet (p value= 0.00) have the p value less than 0.05 which means they are statistically significant with the education level of the participants. But the other food habits - taking regular meals (p value= 0.85), taking milk daily (p value= 0.245), taking sufficient water (p value= 0.63).

**DISCUSSION**

Our study was aimed to evaluate the knowledge, awareness and occurrence of eye problems among the different people that visited OPD of the ophthalmology department in Cox’s Bazar. According to this study, maximum participants have been diagnosed with different types of eye problems like refractive error, cataract, dry eye, corneal abnormalities, hypertensive retinopathy, allergic conjunctivitis etc. but among them cataract and refractive error are the main causes of low vision and blindness globally within the general population which matches with another findings of Saudi Arabia (Alswailmi F.K., 2018).

Almost half of the participants are diagnosed with refractive error which is true because refractive error is the most common ocular problem that affects all age groups (NHLBI, NIH, 2022). These affects how the eye focuses light, leading to blurred vision. Common refractive errors include myopia (nearsightedness), hyperopia (farsightedness), astigmatism, and presbyopia (age-related difficulty in focusing on nearby objects). According to WHO, it is the second cause of visual loss worldwide (D. Pascolini, 2010). Among the 300 participants, two-third of them believe or think that eye problems are curable by drugs and management and it is 100% preventable. In association of education level with the participant’s food habit, it is informed that education level is statistically significant for having regular sufficient food and vegetables, having sufficient protein from different sources and to follow a balanced diet.

**Conclusion and Recommendation**

The prevalence and occurrence of the common eye problems is high among the participants of this study. As food habits are related to the occurrence of eye problems, the education level of the participants is found significant with this food habit. It may be advised that the authority should take responsibility to possess a well programmed schedule for screening and creating awareness about common eye problems.

Further researchers are recommended to give emphasis more to the magnitude, severity and challenges of eye problems based on a particular age group in a community. From the findings of the study, it can be informed that the majority of the participants have knowledge and awareness about eye problems. Therefore, now it is more important to focus and study on the eye health care implementation and management.

**Author Contribution:** All of the authors have equal contribution to this research. The research was done under the direct supervision of Mohammed Jahedul Islam. Result analysis and manuscript writing were done by Mithila Chakraborty and Mohammad Noim Uddin directed by Mohammed Jahedul Islam.

**Financial Support:** There was no financial support for conducting the research.

**Conflicts Of Interest:** There are no conflicts of interests among the authors.

#### Acknowledgments

The research team is thankful to Mr. Aoshim Das, Optometrist, Chattogram Eye Infirmary and Training Complex and Dr. Ismail Hossain, Associate Professor, Department of Ophthalmology, Cox's Bazar Medical College and Hospital. Their cordial cooperation and support during the study made the work possible.

## REFERENCES

- Pizzarello L, Abiose A, Ffytche T, et al. VISION 2020: The Right to Sight: A Global Initiative to Eliminate Avoidable Blindness. *Arch Ophthalmol.* 2004;122(4):615–620. doi:10.1001/archophth.122.4.615
- World Health Organization. *World Report of Vision.* World Health Organization;2019.
- Haymes SA, Johnston AW, Heyes AD: Relationship between vision impairment and ability to perform activities of daily living. *Ophthalmic Physiol Opt.* 2002, 22: 79-91. 10.1046/j.1475-1313.2002.00016.x.
- Keep an Eye on Your Vision Health. (2020, October 1). Centers for Disease Control and Prevention Retrieved September 14, 2022, from <https://www.cdc.gov/visionhealth/resources/features/ke-ep-eye-on-vision-health.html#:~:text=Vision%20Care%20Can%20Change%20Lives,loss%20in%20the%20United%20States>
- Dineen, B. P. (2003, July 1). Prevalence and causes of blindness and visual impairment in Bangladeshi adults: results of the National Blindness and Low Vision Survey of Bangladesh. *British Journal of Ophthalmology*, 87(7), 820–828. <https://doi.org/10.1136/bjo.87.7.820>
- BOURNE, R. (2004, June). Prevalence of refractive error in Bangladeshi adults\*1Results of the National Blindness and Low Vision Survey of Bangladesh. *Ophthalmology*, 111(6), 1150–1160. <https://doi.org/10.1016/j.ophtha.2003.09.046>
- Cattell V. Poor people, poor places, and poor health: the mediating role of social networks and social capital. *Soc Sci Med.* 2001;52(10):1501–16
- Ono K, Hiratsuka Y, Murakami A. Global inequality in eye health: country-level analysis from the global burden of disease study. *Am J Public Health.* 2010;100(9):1784–8. <https://doi.org/10.2105/AJPH.2009.187930>
- Morone P, E Camacho Cuenca, I Kocur and N Banatvala, 2013. Investing in eye health: securing the support of decision-makers. *J. Public Health Policy*, 35: 185-203.
- Alswailmi F.K., Global prevalence and causes of visual impairment with special reference to the general population of Saudi Arabia. *Pakistan journal of medical sciences*, 2018. 34(3): p. 751. pmid:30034452
- Causes and Risk Factors. (2022, March 24). NHLBI, NIH. <https://www.nhlbi.nih.gov/health/pneumonia/causes>
- Pascolini, D. and S. P. Mariotti, "Global estimates of visual impairment: 2010," *British Journal of Ophthalmology*, vol. 96, no. 5, pp. 614–618, 2012.

\*\*\*\*\*