e-ISSN: 0976-822X, p-ISSN:2961-6042

Available online on http://www.ijcpr.com/

International Journal of Current Pharmaceutical Review and Research 2023; 15(9); 282-285

Original Research Article

A Questionnaire-Based Survey Assessing Knowledge and Awareness Regarding Various Visual Impairment Diseases: A Cross Sectional Study

Shailendra Kumar[1], Nilesh Gautam[2], Asif Shahnawaz[3]

[1]Senior Resident, Department of Ophthalmology, Darbhanga Medical College and Hospital, Darbhanga, Bihar, India

[2]Senior Resident, Department of Ophthalmology, Darbhanga Medical College and Hospital, Darbhanga, Bihar, India

[3]Assistant Professor and HOD, Department of Ophthalmology, Darbhanga Medical College and Hospital, Darbhanga, Bihar, India

Received: 10-05-2023 Revised: 20-06-2023 / Accepted: 24-07-2023

Corresponding author: Dr. Nilesh Gautam

Conflict of interest: Nil

Abstract

Aim: The aim of the present study was to analyse and assess the knowledge and awareness of people from a given population in India about the various visual impairment diseases.

Material & methods: This cross-sectional questionnaire-based study with 200 subjects was conducted at Department of Ophthalmology, Darbhanga Medical College and Hospital, Darbhanga, Bihar, India within the duration of 1 year were taken from the camp side. The Institutional Review Committee gave approval to conduct research in the line with the Helsinki Declaration of Medical Ethics, and sign consent was taken from all the subjects.

Results: In the present study, 48% were male and 52% were females. Majority of the subjects belonged to above 60 years age group (46%) followed by 35% in 40-60 years age group. The awareness about cataract was 170 (85%), glaucoma was 164 (82%). 168 (84%) participants were aware that diabetes/BP causes eye problems. 140 (70%) participants were able to treat minor eye problems at home. 132 (66%) participants were prescribed spectacles for near/far vision. 170 (85%) participants were aware that children of age 1-2 years need eye examination. 144 (72%) participants think mobile phones or laptops can cause problem to eye and 160 (80%) participants was aware of digital eye strain.

Conclusion: The present study concludes that the majority of participants in this survey were aware of prevalent eye disorders and their causes; therefore, there is a need for ocular healthcare to focus on weaker areas of knowledge through intervention.

Keywords: Health Literacy, Ocular Disease, Preventable Blindness

Introduction

Health literacy is a key determinant of health and is defined as patient's ability to understand and monitor their disease as well as navigate the health system. Health literacy plays a vital part in the health care system and is essential to a person's overall health and disease prognosis as it influences their ability to self-medicate and make health-related decisions. [1-4] In the developing countries like India, one of the major concerns affecting the general health of the people is the preventable blindness. [5] The World Health Organization (WHO) report enumerates the leading causes of VI: uncorrected refractive errors, cataracts, age-related macular degeneration, glaucoma, diabetic retinopathy, corneal opacity, and trachoma. [6] Interestingly, the Indian population suffers from VI majorly attributed to cataracts (62.6%), followed by refractive error (19.70%), glaucoma (5.80%), posterior segment disorder (4.70%), surgical complication (1.20%), and posterior capsular opacification (0.90%). [7] It has long been recognized that in both developing and developed countries, poor health literacy is a key cause of lack of or delayed uptake of health care services, lack of compliance to treatment and poor followup. [8] Health literacy is defined as the ability of an individual to access, understand and use information to promote and maintain good health. [9] It has been suggested that poor ocular health literacy is a key contributor to the dichotomy that exists between disease prevalence and service uptake. [10,11] In an Indian study, it was found that awareness and knowledge of common ocular conditions, such as cataract, glaucoma, night

blindness, trachoma and diabetic retinopathy was very poor. [12]

Health education and promotion is the one of the most powerful tools to increase the health literacy, as a public health goal, in different settings or localities. [13,14,15] By increasing the awareness and attitude of the person along with their knowledge, the burden of this type of visual impairments and blindness can be reduced on the society. Timely eye care is required by the patients for the early detection of these diseases. Early detection, increase in awareness and knowledge of the patients will help in understanding of the pathogenesis and treatment planning of the disease. It is mandatory for the general population to utilize the available general eye care surfaces of the health care centres for reducing the burden of visual disorders from the general population. [16]

Hence; in the present study, we analyzed and assessed the knowledge and awareness of people from a given population in India about the various visual impairment diseases.

Material & Methods

This cross-sectional questionnaire-based study with 200 subjects was conducted at Department of Ophthalmology, Darbhanga Medical College and Hospital, Darbhanga, Bihar, India within the duration of 1 year were taken from the camp side. The Institutional Review Committee gave approval to conduct research in the line with the Helsinki Declaration of Medical Ethics, and sign consent was taken from all the subjects.

Exclusion Criteria

Pediatrics and those subjects who were not willing and temporary residents were excluded from the study.

Material & Methods

The subject's age, sex and other demographic data was asked at the camp place. All the subjects were rural population of Bihar. A random sampling and the test type from which result calculated was Descriptive Analysis. The questionnaire contains the details of demographic factors in first part and the second part contained questions to assess the knowledge of participants who were aware of the diseases.

Statistical Analysis

All the collected data was entered in MS excel sheet for analysis by descriptive analysis method. After that all the result discussion and conclusion were made.

Results

Table 1: Age and sex distribution of study population

Age	Male	Female	Total
20-40	12	26	38 (19%)
40-60	38	32	70 (35%)
Above 60	46	46	92 (46%)
Total	96	104	200 (100%)

In the present study, 48% were male and 52% were females. Majority of the subjects belonged to above 60 years age group (46%) followed by 35% in 40-60 years age group.

Table 2: Number of responses of subjects on questionnaires

Awareness questions	Responses	
	Yes	No
Have you ever been prescribed spectacles for near/far Vision?	132 (66%)	68 (34%)
Do you know diabetes\ BP causes eye problems?	168 (84%)	32(16%)
Can you treat minor eye problems at home?	140 (70%)	60 (30%)
Do you think children of age 1-2yrs need eye examination?	170 (85%)	30 (15%)
Ever heard about cataract?	170 (85%)	30 (15%)
Do you know sunlight exposure leads to pterygium?	150 (75%)	50 (25%)
Ever heard about glaucoma?	164 (82%)	36 (18%)
Do you know about digital eye strain?	160 (80%)	40 (20%)
Do you think mobile phones or laptops can cause any problem to eyes?	144 (72%)	56 (28%)

The awareness about cataract was 170 (85%), glaucoma was 164 (82%). 168 (84%) participants were aware that diabetes/BP causes eye problems. 140 (70%) participants were able to treat minor eye problems at home. 132 (66%) participants were prescribed spectacles for near/far vision. 170 (85%) participants were aware that children of age 1-2 years need eye examination. 144 (72%) participants think mobile phones or laptops can cause problem to eye and 160 (80%) participants was aware of digital eye strain.

Discussion

It has long been recognized that in both developing and developed countries, poor health literacy is a key cause of lack of or delayed uptake of health care services, lack of compliance to treatment and poor follow-up. [17-21] Health literacy is defined

as the ability of an individual to access, understand and use information to promote and maintain good health. [22] It has been suggested that poor ocular health literacy is a key contributor to the dichotomy that exists between disease prevalence and service uptake. [23-25] In an Indian study, it was found that awareness and knowledge of common ocular conditions, such as cataract, glaucoma, night blindness, trachoma and diabetic retinopathy was very poor. [18] Having heard of the disease was defined as "awareness" and having some understanding of the basic etiology and symptoms of the disease was defined as "knowledge".

In the present study, 48% were male and 52% were females. Majority of the subjects belonged to above 60 years age group (46%) followed by 35% in 40-60 years age group. The awareness about cataract was 170 (85%), glaucoma was 164 (82%). 168 (84%) participants were aware that diabetes/BP causes eye problems. 140 (70%) participants were able to treat minor eye problems at home. 132 (66%) participants were prescribed spectacles for near/far vision. 170 (85%) participants were aware that children of age 1-2 years need eye examination. 144 (72%) participants think mobile phones or laptops can cause problem to eye and 160 (80%) participants was aware of digital eye strain. The common eye diseases prevailing among people throughout the world include refractive errors like myopia (near-sightedness), hyperopia (farsightedness), and astigmatism (distorted vision at all distances), which usually affect children and young adults. Presbyopia is a visual defect that generally affects middleaged people. Other eye diseases commonly seen are age-related macular degeneration, cataracts, glaucoma, diabetes-related retinopathy, amblyopia (lazy eye), and night blindness, among others. [26] Since most eye diseases are preventable, the World Health Organization (WHO) has proposed implementing the integrated people-centered eye care (IPEC) model. This includes devising tools to diagnose, treat, and manage common eye diseases and using mobile toolkits to increase awareness, bring health literacy about reducing the risk factors for preventable diseases, and increase compliance regarding regular eye examinations. [27]

Above 60 years of age people were more aware about cataract, glaucoma, diabetic retinopathy and they aware about the fact that all of these disorders can leads visual impairment. Not only these common diseases, sunlight exposure and digital screen hampers in our day-to-day activities. To reduce these problems, health literacy can play a very important role in health care system. It can be achieved by awareness campaigns to increase the level of knowledge on eye complications of common ocular disorders. Not only these common diseases, sunlight exposure and digital screen hampers in our day-to-day activities. To reduce these problems awareness campaigns to increase the level of knowledge on eye complications of common ocular diseases. Regular eye examination, Cataract screening camps, intraocular pressure (IOP) for screening of glaucoma, regular sugar level examination to rule out the problems which was present in our community.

Conclusion

This study suggested that even the majority of participants were aware of the common ocular disorders. But, there is still a need for intervention from ocular healthcare to focus on weaker areas of knowledge. The knowledge of common eye disorders and awareness of eye care could lead to an increase in understanding and management of eye health and thereby it may reduce vision loss and the cost of eye care later. Thereby it may reduce visual impairment and cost of eye care.

References

1. Jandorf S, Krogh Nielsen M, Sørensen K, Sørensen TL. Low health literacy levels in patients with chronic retinal disease. BMC ophthalmology. 2019 Dec;19(1):1-5.
2. Juzych MS, Randhawa S, Shukairy A, Kaushal P, Gupta A, Shalauta N. Functional health literacy in patients with glaucoma in urban settings. Archives of ophthalmology. 2008 May 1;126(5):718-24.
3. Muir KW, Santiago-Turla C, Stinnett SS, Herndon LW, Allingham RR, Challa P, Lee PP. Health literacy and adherence to glaucoma therapy. American journal of ophthalmology. 2006 Aug 1;142(2):223-6.
4. Chahardah-Cherik S, Gheibizadeh M, Jahani S, Cheraghian B. The relationship between health literacy and health promoting behaviors in patients with type 2 diabetes. International journal of community-based nursing and midwifery. 2018 Jan;6(1):65.
5. Murthy GV, Gupta SK, Bachani D, Jose R, John N. Current estimates of blindness in India. British Journal of Ophthalmology. 2005 Mar 1;89(3):257-60.
6. Blindness and vision impairment. (2021).
7. National Programme for Control of Blindness and Visual Impairment (NPCB&VI) . (2017). Accessed: September 15, 2022
8. Shrestha MK, Guo CW, Maharjan N, Gurung R, Ruit S. Health literacy of common ocular diseases in Nepal. BMC ophthalmology. 2014 Dec; 14:1-8.
9. 7th Global Conference on Health Promotion: track themes 2: Health literacy and health behaviour.
10. Thapa SS, Berg RV, Khanal S, Paudyal I, Pandey P, Maharjan N, Twyana SN, Paudyal G, Gurung R, Ruit S, Rens GH. Prevalence of

visual impairment, cataract surgery and awareness of cataract and glaucoma in Bhaktapur district of Nepal: The Bhaktapur Glaucoma Study. BMC ophthalmology. 2011 Dec;11(1):1-9.
11. Sapkota YD, Pokharel GP, Dulal S, Byanju RN, Maharjan IM. Barriers to up take cataract surgery in Gandaki Zone, Nepal. Kathmandu University medical journal (KUMJ). 2004 Apr 1;2(2):103-12.
12. Dandona R, Dandona L, John RK, McCarty CA, Rao GN. Awareness of eye diseases in an urban population in southern India. Bulletin of the World Health Organization. 2001;79(2):96-102.
13. Nutbeam D. Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21st century. Health promotion international. 2000 Sep 1;15(3):259-67.
14. Shores NJ, Maida I, Soriano V, Núñez M. Sexual transmission is associated with spontaneous HCV clearance in HIV-infected patients. Journal of hepatology. 2008 Sep 1;49(3):323-8.
15. Noertjojo K, Maberley D, Bassett K, Courtright P. Awareness of eye diseases and risk factors: identifying needs for health education and promotion in Canada. Canadian journal of ophthalmology. 2006 Oct 1;41(5):617-23.
16. Temporini ER, Kara Junior N, José NK, Holzchuh N. Popular beliefs regarding the treatment of senile cataract. Revista de Saúde Pública. 2002; 36:343-9.
17. Attebo K, Mitchell P, Cumming R, Smith W: Knowledge and beliefs about common eye diseases. Aust N Z J Ophthalmol 1997, 25(4):283–287.
18. Dandona R, Dandona L, John RK, McCarty CA, Rao GN: Awareness of eye diseases in an urban population in southern India. Bull World Health Organ 2001, 79(2):96–102.
19. Livingston PM, Lee SE, De Paola C, Carson CA, Guest CS, Taylor HR: Knowledge of glaucoma, and its relationship to self-care practices, in a population sample. Aust N Z J Ophthalmol 1995, 23(1):37–41.
20. Livingston PM, McCarty CA, Taylor HR: Knowledge, attitudes, and self care practices associated with age related eye disease in Australia. Brit J Ophthalmol 1998, 82(7):780–785.
21. Javitt JC: Preventing blindness in Americans: The need for eye health education. Surv Ophthalmol 1995, 40(1):41–44.
22. 7th Global Conference on Health Promotion: track themes 2: Health literacy and health behaviour.
23. Sapkota YD, Pokharel GP, Dulal S, Byanju RN, Maharjan IM: Barriers to up take cataract surgery in Gandaki Zone, Nepal. Kathmandu Univ Med J (KUMJ) 2004, 2(2):103–112.
24. Sapkota YD, Pokharel GP, Nirmalan PK, Dulal S, Maharjan IM, Prakash K: Prevalence of blindness and cataract surgery in Gandaki Zone, Nepal. Brit J Ophthalmol 2006, 90(4):411–416.
25. Snellingen T, Shrestha BR, Gharti MP, Shrestha JK, Upadhyay MP, Pokhrel RP: Socioeconomic barriers to cataract surgery in Nepal: the south Asian cataract management study. Brit J Ophthalmol 1998, 82(12):1424–1428.
26. Common Eye Disorders and Diseases. 2020.
27. Blindness and vision impairment. 2021.