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Common eye illness health literacy rate in the rural population of Punjab

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Abstract
Background: A patient's health literacy is fundamental for navigating the health system and managing disease. The aim of this study was to determine the knowledge and perception of prevalent eye diseases among the rural population of Punjab.
Aim: To promote health education in order to improve health literacy and eliminate preventable and treatable blindness.
Methodology: The subject's records were collected from the camp side at the community. Patients under the age of 18 were excluded from the study. In addition, unwilling participants and transient residents are eliminated from the study. The subject's age, gender, and other demographic information were collected at the campsite. This study included 251 individuals, 124 of whom were male and 126 of whom were female. 90 participants were illiterate, compared to 161 who were literate. They ranged in age from 20 to 85.
Result: Cataract awareness was 217, while glaucoma awareness was 208. 216 respondents were aware that diabetes and hypertension might cause eye difficulties. 178 individuals were able to cure minor eye conditions at home. 168 individuals were prescribed near/far vision glasses. 218 respondents were aware that children aged 1 to 2 years require an eye screening. 187 individuals believe that mobile phones and computers can cause eye problems, whereas 199 are 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, 2, 3, 4]. Poor health literacy may contribute to poor outcomes, as low health literacy has previously been linked to worse disease prognosis, especially in patients with chronic conditions [5, 6]. Poor health literacy can led to a greater risk of worse disease prognosis and even comes with a significant economic burden. There are approximately 36 million people in the world who are blind (presenting visual acuity [PVA] <3/60 better eye) and that low- and middle-income countries, including India, have a disproportionately higher burden of blindness [7]. With 8 million blind people and 62 million visually impaired, India shares almost a quarter of the entire global burden of blindness and vision impairment [8]. The visual impairment and blindness reduces productivity, quality of life and increases the risk of death [9, 10, 11]. In the year 2004, the World Health Organization (WHO) estimated that vision loss caused 3.9% of the total global burden of disease measured as disability-adjusted life years [12]. Among those who are blind or have moderate or severe vision impairment, 81% are aged 50 years and above [13].
Health literacy is about the status, knowledge, motivation and competency to access, understand, appraise and apply information concerning healthcare, prevention of disease and health promotion [15].

Health literacy has an important impact and implications for the health care system [16]. A visual impairment due to ocular disorders affects not only the quality of life of an individual, but this also has implications for their educational and employment opportunities. Poor health literacy is often a key cause of lack of/or delayed uptake of health care service [5, 6]. Ocular disease is those that affect the eye health and vision in patients of all different ages. Early detection and treatment could prevent vision loss [17].
In this study, the researcher considered some of the most common ocular disorders like refractive errors, cataract, glaucoma, dry eyes, pterygium and diabetic retinopathy.

Method

The records of the subjects were taken from the camp side at community department of Sankara Eye Hospital, Ludhiana from May 2021 to May 2022. Pediatrics and those subjects who were not willing and temporary residents were excluded from the study. The subject's age, sex and other demographic data was asked at the camp place.
This cross sectional questionnaire based study with 251 subjects was conducted at Sankara Eye Hospital, Ludhiana. All the subjects were rural population of Punjab. 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.
A permission from higher authorities, and sign consent were taken from all the subjects. 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.

Result:

Two hundred fifty participants were included in this study at Sankara Eye Hospital Ludhiana between July 2021 to May 2022, among which 124 (49.5%) were male and 126 (50.2%) were female.160 (64.2%) participants were literate and 90 (32.9%) were illiterate. Their age ranged from 20-85 years. The awareness about cataract was 217 (86.5%), glaucoma was 208 (82.9%). 216 (86%) participants were aware that diabetes/BP causes eye problems. 178 (70.9%) participants were able to treat minor eye problems at home. 168 (66.9%) participants were prescribed spectacles for near/far vision. 218 (86.8%) participants were aware that children of age 1-2 years need eye examination. 187 (74.5%) participants think mobile phones or laptops can cause problem to eye and 199 (79.2%) participants was aware of digital eye strain.

Table 1: Age and sex distribution of study population

Age	Male	Female	Total
20-40	14(11.29%)	34(26.7%)	49(19.5%)
40-60	47(37.9%)	38(29.9%)	84(33.4%)
Above 60	62(50%)	55(43.3%)	117(46.6%)
Total	123	127	250

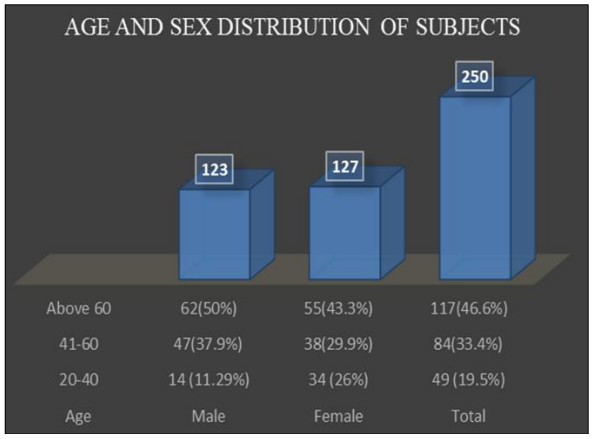

Fig 1: Age and Sex Distribution of Subject

Table 2: Number of responses of subjects on questionnaires

Awareness questions	Responses	
	Yes	No
Have you ever been prescribed spectacles for near/far Vision?	169(67.6%)	82(32.8%)
Do you know diabetes\ BP causes eye problems?	217(86.5%)	34(13.6%)
Can you treat minor eye problems at home?	179(70.9%)	72(28.8%)
Do you think children of age 1-2yrs need eye examination?	219(86.5%)	32(12.8%)
Ever heard about cataract?	217(86%)	34(13.6%)
Do you know sunlight exposure leads to pterygium?	189(74.5%)	59(23.60%)
Ever heard about glaucoma?	204(82.9%)	47(18.8%)
Do you know about digital eye strain?	199(79.2%)	52(20.8%)
Do you think mobile phones or laptops can cause any problem to eyes?	187(74.2%)	64(25.6%)

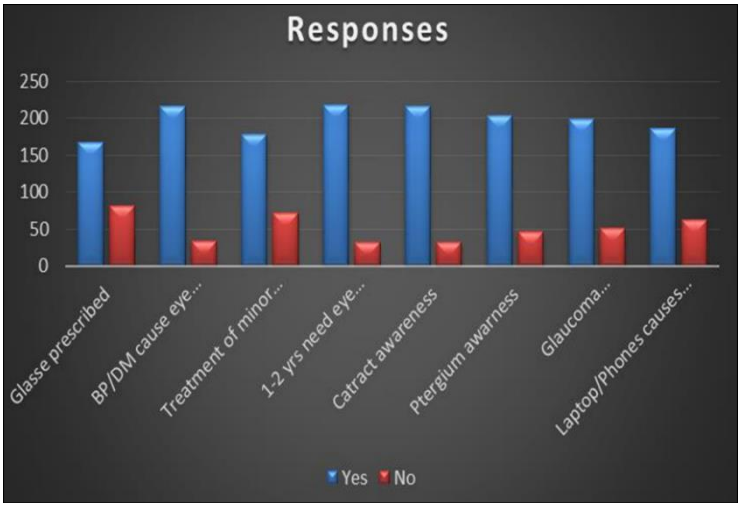

Fig 2: Number of responses of subjects on questionnaires

Discussion

This study highlighted the fact that health literacy of common ocular diseases in rural population of Punjab was present with high rate of awareness. 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.

The relationship between health literacy and ocular diseases is unique as health literacy, among other parameters, depends on the level of vision. Regular eye examination, eye screening camps to rule out the problems which can lead to a serious eye and health problems and also can reduce healthcare disparities.

Conclusion

This study suggest 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.

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