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Research article

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Knowledge, Attitude, Practice of Presbyopia among Health care workers in Tertiary Health Care

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ABSTRACT

Aim

To determine the prevalence and to assess the level of knowledge, attitude, the practice of Presbyopia among health care workers in tertiary health care.

Settings and Design

It was a hospital-based cross-sectional and questionnaire study conducted in the Outpatient Department Of Ophthalmology at Saveetha Medical College and Hospital from November 2021 to January 2022.

Methods and Material

This study was done on 140 subjects in the age group between 40-60 years among health care workers, and it is approved by the Institutional Ethical Committee of Saveetha College of Allied Health Sciences. 20 Structured pre and post-questionnaires were administered to all consenting health care workers and a video shown to determine the prevalence of Presbyopia and to assess the level of Knowledge, Attitude, the practice of Presbyopia. Visual acuity measured using Snellen's chart for distance and near. The eye with the better visual acuity was used for classifying the patients.

Results

Based on our results we observe that the prevalence of Presbyopia was found to be 71% and based on assessment 77.1% of subjects heard about near vision loss in pre-assessment and 100% in post-assessment. About 89.2% of individuals thought the loss of vision was age-related in pre-assessment and 100% in post-assessment and 91.4% were aware that treatment of Presbyopia is glasses in pre-assessment and 100% in post-assessment. The major reason for not wearing spectacles was difficult to assess is about glasses 37.8%.

Conclusion

High prevalence of Presbyopia was seen with the majority of them uncorrected due to lack of awareness 33.5%, difficult to assess 37.8%, lack of felt needed 28.5%, Therefore Awareness was created about Presbyopia among health care workers. Ensuring adequate treatment of Presbyopia among health care workers can impact positively the quality of life and productivity of health personnel.

Keywords: Presbyopia, Visual Acuity, age-related, attitude.

INTRODUCTION

Accommodation is the ability of the eye to change its refractive power to bring objects of regard at a different distance into focus¹. Presbyopia is an age-related loss of lens accommodation causing the inability to focus at a near distance. It is the most common physiological change occurring in the adult eye. People who have Presbyopia may complain of headache and eye strain and have to hold the object progressively farther away from their eye to be able to focus on them. Economic consequences are likely considerable, as uncorrected Presbyopia affects people in the working-age group². It starts around adolescence but usually becomes manifested between 40 and 45 years, and occurs much earlier in females than males³. Age, high ambient temperature, female gender, and high hypermetropia are major risk factors for the early onset and development of presbyopia⁴. Although Presbyopia affects a large number of people it can be easily treated. It has not gained adequate recognition as a major cause of vision impairment, possibly current definitions of vision impairment do not account for the difficulty in near vision⁵.

SUBJECTS AND METHODS

This was a hospital-based cross-sectional and questionnaire study. This study was done on 140 subjects, age group between 40-60 years, among 43 were male and 97 were female and it is approved by the IEC Committee of Saveetha College of Allied Health Sciences. This study was conducted over 3 months from November 2021 to January 2022. Simple random sampling technique was used to recruit subjects for the study. Visual acuity measured using Snellen's chart and near vision tested at a distance of 40 cm with a near vision chart. In this questionnaire-based study, a pre questionnaire form is given with 20 questions along with the options regarding the demography detail, problems in near vision, fatigue from doing near work, etc to the health care workers, and a video was shown to create awareness followed by post-assessment of questionnaires. All the data were analyzed using a statistical version of the statistical package for the social sciences (SPSS) software 16.0 version. Descriptive statistic was used to find the Mean, Standard deviation.

RESULTS

Table1: Distribution of Gender

GENDER	NUMBER OF RESPONDENTS	PERCENTAGE
MALE	43	31%
FEMALE	97	69%
TOTAL	140	100%

A total of 140 health care workers are participated in this study where 31% of the subjects were male health care workers and 69% were female health care workers and the same was depicted in the Fig – 1.

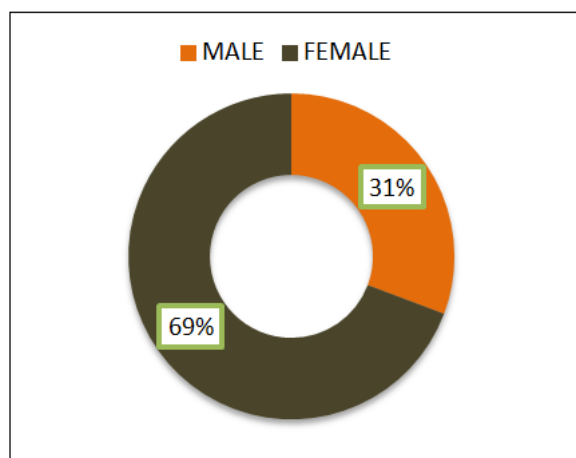


Fig 1: Distribution of Gender Among Health Care Workers

Table 2: Distribution of Age In Years

AGE GROUP IN YEARS	NUMBER(n=140)	PERCENT
40-45	51	36%
46-50	40	29%
51-55	24	17%
51-60	25	18%

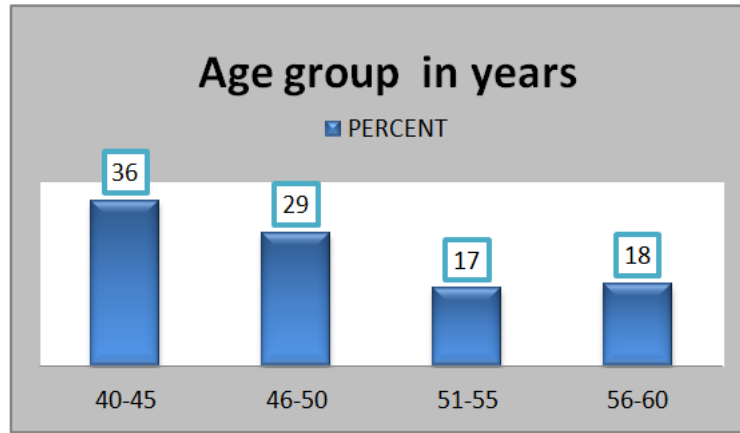


Fig 2: Age Distribution of Subjects in Years

Table 3: Distribution of Visual Acuity

D .VISION	n=140	N. VISION	n=140
6/60-6/24	13(9%)	N36-N18	14(10%)
6/18-6/9	85(61%)	N12-N8	86(61%)
6/6	42(30%)	N6	40(29%)

From the above table 3 A total of 140 persons were examined where visual acuity for distance is tested by using snellens chart in which 42(30%) were emmetropic and remaining 98(70%) had visual acuity less than 6/6. The eye with the better visual acuity was used for classifying the patients. This results are shown in the figure 3.

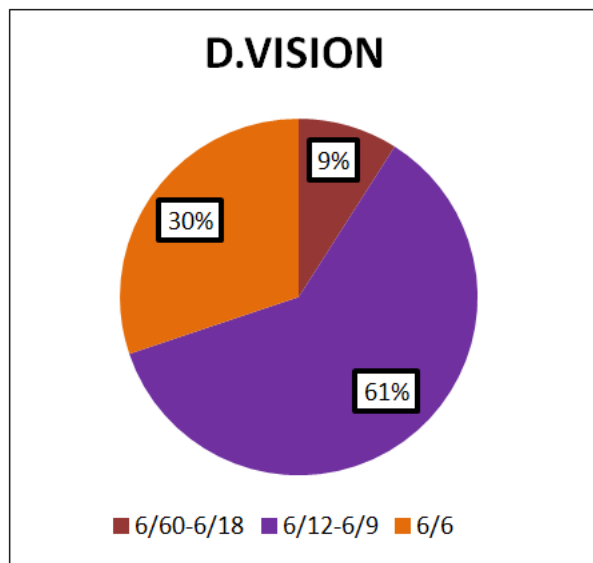


Fig 3: Visual Acuity for Distance Vision Among Health Care Workers

From table 3 it shows that visual acuity is tested for near vision by using snellens chart in which the prevalence of presbyopia was 71% and 40(29%) has good near vision. The eye with the better visual acuity was used for classifying the patients. This result is shown graphically in figure 4

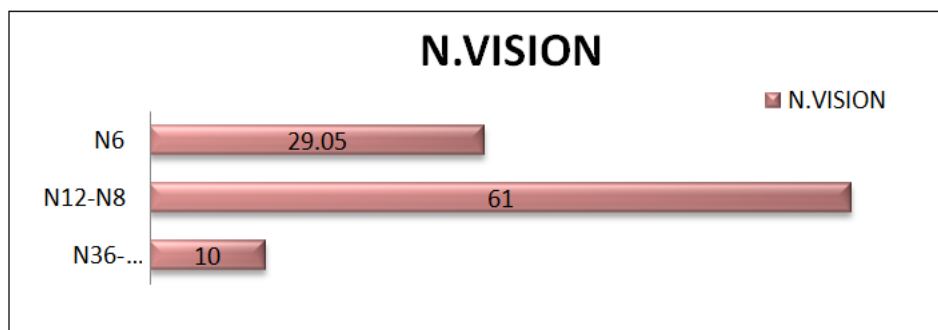


Fig 4: Visual Acuity For Near Vision among Health Care Workers

Table 4: Pre And Post Assessment of Presbyopia Questionnaires

S.N O	QUESTIONS	PRE ASSESSMENT	POST ASSESSMENT
		NUMBER AND PERCENTAGE	
1	Have you heard about near vision loss?		
	Yes	(108) 77%	(140) 100%
	No	(32) 22.8%	(0) 0%
2	Reasons for not using glasses?		
	Lack of awareness	(47) 33.5%	(47) 33.5%
	Difficult to access	(53) 37.8%	(53) 37.8%
	Lack of felt need	(40) 28.5%	(40) 28.5%
	Felt ashamed to wear	(0)0%	(0)0%
3	Because of your eye sight how much difficulty do you have in carrying out your usual work?		
	Mild	(70) 50%	(70) 50%
	Moderate	(37) 26.4%	(37) 26.4%
	None	(33) 23.5%	(33) 23.5%
4	Do you feel difficult while reading newsprint /ordinary size print?		
	Mild	(69) 49.2%	(69) 49.2%
	None	(36) 25.7%	(36) 25.7%
	Moderate	(35) 25%	(35) 25%
5	Do you experience fatigue from doing close work?		
	Mild	(64) 45.7%	(64) 45.7%
	Moderate	(45) 32%	(45) 32%
6	Do you feel headache or eye strain after reading or doing close work?		
	Mild	(55) 39.2%	(55) 39.2%
	None	(52) 37%	(52) 37%
7	Do you feel difficult while seeing display on a mobile or computer?		
	Mild	(53) 37.8%	(53) 37.8%
	Moderate	(37) 26.4%	(37) 26.4%
8	How much difficulty do you have in seeing close objects (eg: making out differences in coins or notes)?		
	Mild	(53) 37.8%	(53) 37.8%
	None	(57) 40.7%	(57) 40.7%

	Moderate	(30) 21.4%	(30) 21.4%
9	Do you feel difficulty in doing activities that require you to well close up using surgical tools / hand tools?		
	Mild	(41) 29.2%	(41) 29.2%
	None	(78) 55.7%	(78) 55.7%
	Moderate	(21) 15%	(21)15%
10	Do you feel difficulty in seeing objects close to you in poor or dim light?		
	Never	(55)39.2%	(55)39.2%
	Sometimes	(65) 46.4%	(65) 46.6%
	Rarely	(20) 14.2%	(20) 14.2%
11	Because of your eyesight how often do you need help from others?		
	Never	(102) 72.8%	(102) 72.8%
	Sometimes	(25) 17.8%	(25) 17.8%
	Rarely	(13) 9.2%	(13) 9.2%
12	Do you feel difficult while conducting near work?		
	Never	(88) 62.8%	(88) 62%
	Sometimes	(38) 27%	(38) 27%
	Rarely	(14) 10%	(14) 10%
13	Do you have difficulty while unlocking or handling instruments?		
	Yes	(36) 25.7%	(36) 25.7%
	No	(104) 74.2%	(104) 74.2%
14	Can you seen numbers or names in telephone directory?		
	Yes	(24) 17%	(24) 17%
	No	(116) 82.8%	(116) 82.8%
15	Do you feel difficulty with personal correspondence (writing checks , reading bills, filling out forms)?		
	Yes	(22) 15.7%	(22) 15.7%
	No	(118) 84.2%	(118) 84.2%
16	Why people may lose near vision after 35 years?		
	Age related	(125) 89.2%	(140) 100%
	Nerve problem	(8) 5.7%	(0)0%
	Cataract	(3) 2%	(0)0%
	Don't Know	(4) 2.8%	(0)0%
	Curse of god	(0)0%	(0)0%
17	How often do you visit an ophthalmologist ?		
	As and when required	(32) 22.8%	(32) 22.8%
	Once in a year	(103) 73.5%	(103) 73.5%
	Every month	(0)0%	(0)0%
	not necessary	(5) 3.5%	(5) 3.5%
18	How satisfied are you with your near vision ?		
	Completely Satisfied	(101) 72%	(101) 72%
	Moderately Satisfied	(35) 25%	(35) 25%
	Little Satisfied	(4) 2.8%	(4) 2.8%
19	What treatment do you think will correct near vision?		
	Glasses	(128) 91.4%	(140) 100%
	Drops	(7) 5%	0%
	Surgery	(5) 3.5%	0%
	Tablets	(0)0%	0%
	Don't Know	(0)0%	0%
20	Overall how would you rate your eyesight –with or without glasses?		
	Good	(118) 84.2%	(118) 84.2%
	Moderate	(19) 13.5%	(19) 13.5%
	Bad	(3) 2%	(3) 2%

Based on our result, we observe that 50% of our cohorts had problems in carrying out usual work, 49% reading newsprint, 45.7% fatigued from close work,

39.2% seeing the display on mobile,39.2% eye strain after reading, 40.7% seeing close objects, 46.4% seeing objects close in poor dim light.

Among our cohorts 77.1% of subjects heard about near vision loss in pre-assessment and 100% in post-assessment, however, 89.2% of individuals thought the loss of vision was age-related in pre-assessment and 100% in post-assessment, and 91.4% were aware that treatment of presbyopia is glasses in pre-assessment and 100% in post-assessment. Several individuals consulting ophthalmologists once in a year are (73.5%). (72.14%) are completely satisfied with their near vision and when asked on Knowledge, Attitude, Presbyopia questionnaire to rate their eyesight overall (84.2%) indicated that their eyesight was good.

Among these 140 subjects, (55.7%) don't feel difficult while using surgical /hand tools. (72.8%) don't

require help from others,(62.8%) doesn't feel difficult while conducting near work, and (74.2%) while handling instruments. (82.8%) feel difficult while seeing numbers in the telephone directory and (84.2%) do not feel difficulty with personal correspondence. The major reason for not wearing spectacles was difficulty in maintaining glasses while working is about (37.8%), lack of felt need (28.5%), and lack of awareness was about (33.5%).

The highest percentage from 20 Knowledge, Attitude, presbyopia questions above in pre and post-assessment results are represented graphically in fig 5.

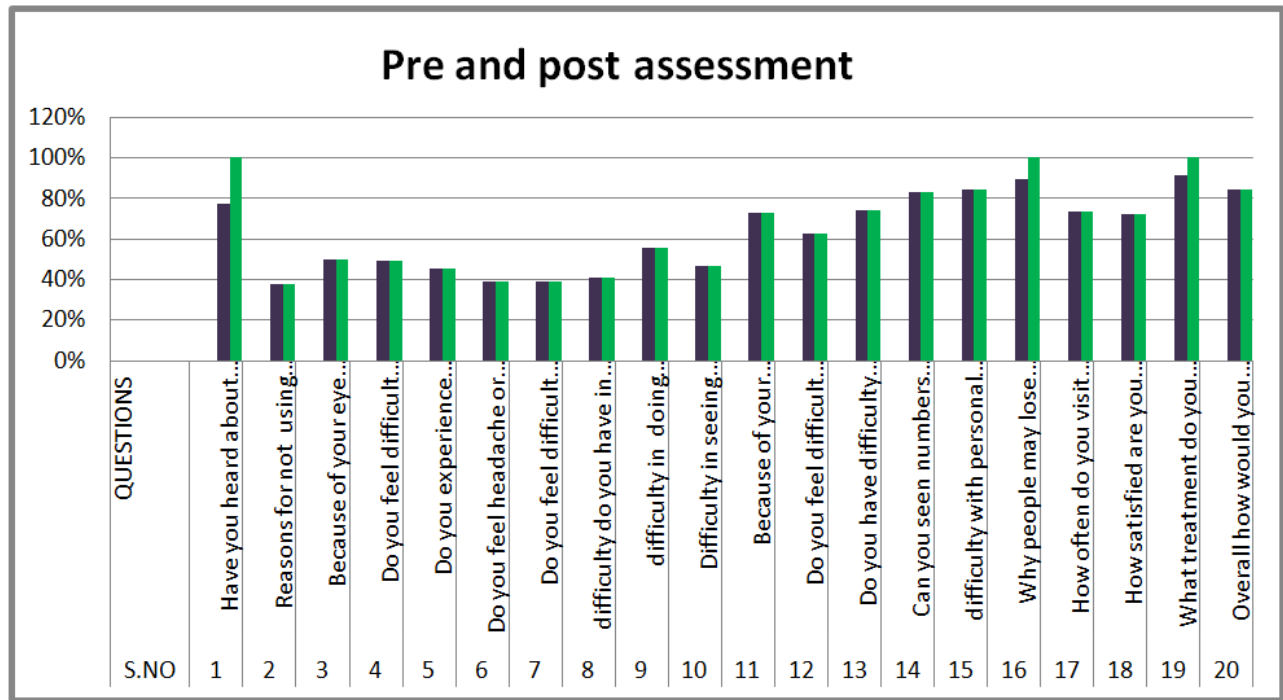


Fig 5: Pre and Post Assessment Of Presbyopia Questionnaires

DISCUSSION

Presbyopia is an age-related loss of lens accommodation causing the inability to focus at near. Life long growth of the lens is currently thought to be the primary causal factor in the development of presbyopia. Age, high ambient temperature, female gender, and high hypermetropia are major risk factors for the early onset and development of presbyopia. It starts around adolescence but usually becomes manifested between 40 and 45 years, and occurs much earlier in females than males. Economic consequences are likely considerable, as uncorrected presbyopia affects people in the working-age group. So, there is a

need to create more awareness among health care workers about presbyopia and its correction. The result shows that 88.8% are aware of presbyopia in pre-assessment and after presbyopia awareness followed by post-assessment in which the result improves up to 91.8%. This is related to the fact that our studied cohort was likely to be educated since they are staff of a tertiary health care facility.

The prevalence of presbyopia in this study was 71%. The major reason for not using glasses is 37.8% feel difficult to assess, 33.5% due to lack of awareness, 28.5% lack of felt need. The younger age group was significantly more likely not to use correction compared to the older age groups.

Balrbe AH et al conducted a study on Presbyopia among Health care Workers in a Tertiary Hospital. The prevalence of presbyopia was about 42.1% and the barriers to lack of wearing correction were mainly due to lack of awareness and concluded that need to create more awareness and ensure adequate treatment of presbyopia among health care workers.

Obajolowo TS et al have undergone a study in the year 2016 on Prevalence and Pattern of Presbyopia. The prevalence of presbyopia in this study was 59.7%. Nearly half of the subjects with presbyopia (46.5%) had glasses that improved their near vision. the commonest barrier to obtaining spectacles was cost. hence they concluded that increasing the availability of affordable spectacles for patients with presbyopia will help to overcome this challenge.

Gajapati CV et al have undergone a study about the Awareness of presbyopia among the Rural Female

population. The prevalence of presbyopia in this study was 82%.where 10.9% of individuals felt a lack of need to wear spectacles, however, only 2.3% were unable to afford to buy spectacles, and 60.2% had difficulty in maintaining spectacles. They concluded that there is a need for health education about presbyopia and also provision for high-quality care, low-cost spectacles.

CONCLUSION

In this study, 88.8% of health care workers are aware of presbyopia in pre-assessment and 91.8% are aware in post-assessment after the video is shown. So by this study, we conclude that awareness should be created about presbyopia. Ensuring adequate treatment of presbyopia among health care workers ensures a positive attitude toward presbyopia and its treatment.

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