



Awareness Of Presbyopia Among Female Population In Rural Eluru

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Abstract: Purpose: To evaluate the awareness of presbyopia among female population in rural Eluru aged 35 years and above. Methods:500 female population residing in rural Eluru are taken into study, through validated open- ended questionnaire. Results: Responses are analysed in the form of ratios and percentages. Chi-square test is used to analyse the correlation between the awareness of presbyopia and level of literacy. Conclusion: The female population residing in rural Eluru need awareness regarding presbyopia and usage of spectacles.

Key words- presbyopia,awareness,rural female population

I. INTRODUCTION

The age-related decrease of lens accommodative amplitude known as presbyopia makes it difficult to focus upon near objects. It is believed to be the most frequent physiological alteration in the adult eye that results in age-related near vision impairment.[1]

The ciliary muscles, lens, and capsule alterations, as well as changes in the vitreous, are linked to the variations in accommodation. [2].

Rural women are more likely than men to report having trouble with close jobs because they spend more time on near labor, such sewing and cleaning grains. [3].

Presbyopia symptoms include the need for additional light to read, trouble reading newspaper fine print, and eyes that take too long to concentrate at a close distance. [4]

Uncorrected near vision will negatively affect daily tasks such as reading newspapers and seeing phone numbers, as well as self-esteem. [5]

Depending on their line of employment, people with presbyopia and refractive error may require bifocals. [6]

Global prevalence of presbyopia was projected to be 1.8 billion in 2015, and it is predicted to peak at about 2.1 billion in 2030 [7]

II. MATERIAS AND METHODS

It is a prospective, observational questionnaire-based study. This study is conducted among 500 females aged 35 years and above residing in rural Eluru from 1st May 2023 to July 31st, 2023, at ASRAM medical college. Written informed consent was obtained from each patient in their local language (Telugu). ASRAM Medical College Hospital Institutional Ethics Board approval was obtained before the conduct of the study, which adhered to the tenets of the Declaration of Helsinki. A questionnaire was used to capture all demographic data and assessment findings through convenient sampling method. Females residing in rural Eluru aged 35 years and above having difficulty in near work problems with best corrected visual acuity more than 6/9 or better are taken into inclusion criteria. Females with any other ocular infections, which are related to vision threatening conditions like macular and retinal dystrophies are excluded in this study.

QUESTIONNAIRE USED FOR DEMOGRAPHIC DATA AND ASSESSMENT FINDINGS

1.Name:

2.Place:

3.Level of literacy:

1-primary level of education

2-middle level of education

3-higher level of education

4-pre university

5-university.

4.Household income: [1]<10,000

[2]10,000-25,000

[3]>25,000.

5.Visual acuity:

6.Refraction:

2.1 STUDY PROCEDURE**QUESTIONNAIRE**

[Q1]-Are you having difficulty in?

- 1.reading newsprint.
- 2.cleaning the grains.
- 3.headache
4. recognising the denomination of coins.
- 5.seeing small objects in food.
- 6.threading the needle.
- 7.other household work.

[Q2] 1. Ashamed

2. Distressed

3.Embarrassed-with your problem?

[Q3] **Have you heard of near vision loss-** 1-Yes,2-No.

[Q4] **Duration between onset of symptoms and first consultation?**

(1)-within 6 months

(2)-more than 7 to 24 months

[Q5] **Why people may lose their near vision after 35 years?**

1-cataract

2-nerve problem

3-glaucoma

4-age related

5-curse from God

6-dont know.

[Q6]**What treatment do you think will correct near vision loss?**

1-glasses 2-surgery 3-tablets 4-drops 5-not correctable 6-dont know.

[Q7] Reasons for not using glasses?

- 1-lack of awareness
- 2-felt ashamed to wear
- 3-lack of felt need
- 4-not affordable
- 5-difficult to access.
- 6 -lack of compliance
- 7-difficult to maintain while working
- 8-image distortion while working.
- 9-headache
- 10-lack of accompanying person
- 11-laziness.

[Q8] How often have you been following up with ophthalmologist after you were once diagnosed as having near vision problem?

- [1] As and when required [2] not necessary [3]once in a year [4] every month

The best corrected visual acuity (BCVA) for far vision was measured during the ocular examination using an illiterate E chart or Snellen's charts at distance of 6 meters in a well-lit space.

All participants presenting with visual acuity less than 6/6 in one or both eyes underwent subjective refraction. After correcting their distance vision, near vision was evaluated using a 33 cm working distance Snellen's near vision chart or an illiterate E near chart.

Each person who was unable to read N8 vision had their progress monitored by adding the plus lens. Pupil response, intraocular pressure (IOP), and slit-lamp examination of the anterior and posterior segments were carried out.

III. STATISTICAL ANALYSIS

The collected data entered in Microsoft excel 2010 and analysed using SPSS20.0 version. Descriptive studies and Chi square test is used for analysis. p value <0.05, considered to be statistically significant.

IV.RESULTS

In this study, 500 female subjects were examined. The responses are analysed in the form of ratios and expressed in the form of percentages by using frequency method which are tabulated below according to the demographic characteristics of the subjects.

This table demonstrates the percentage of presbyopia prevalence according to the age.

OBSERVATION -In this study,

presbyopia in 35 -50 years of age is 66.4%

presbyopia in 51 -65 years of age is 33.6%

AGE	FREQUENCY	PERCENT
35-50 Years	332	66.4
51-60 years	168	33.6
Total	500	100

This table demonstrates the percentage of Level of literacy.

The level of literacy varies among people, those who completed

primary level of education is 45.8%

middle school education is 37.0%

high school education is only 17.2%.

	Percent	PERCENTAGE
		45.8
PRIMARY	229	45.8
MIDDLE	185	37.0
HIGH SCHOOL	86	17.2
Total	500	100.0

This table demonstrates the percentage of presbyopia in rural female population.

In this study, among 500 female population,

65.2% are having presbyopia.

34.8% are not having presbyopia.

	FREQUENCY	PERCENTAGE
PRESBYOPIA	326	65.2
NO PRESBYOPIA	174	34.8
Total	500	100.0

QUESTIONNAIRE RESPONSES

QUESTION-1	Frequency	Percent
Valid	1	53
	2	181
	3	35
	5	43
	6	188
Total	500	100.0

37.6% responded for having difficulty in threading the needle,

36.2% having difficulty in cleaning the grains,

10.6% having difficulty in reading the newsprint,

8.6% having difficulty in seeing small things in the food.

7.0% having headache.

QUESTION-2		Frequency	Percent
Valid	1	105	21.0
	2	223	44.6
	3	172	34.4
	Total	500	100.0

Q2 44.6% are distressed ,34.4% are embarrassed with the problem.

QUESTION-3		Frequency	Percent
Valid	1	218	43.6
	2	282	56.4
	Total	500	100.0

56.4% are not aware about the near vision loss , only 43.6% are aware about this problem.

QUESTION-4		Frequency	Percent
Valid	1	168	33.6
	2	332	66.4
	Total	500	100.0

66.4% visited the ophthalmologist after 7 months onwards after the onset

QUESTION-5		Frequency	Percent
Valid	1	162	32.4
	4	335	67.0
	6	3	.6
	Total	500	100.0

67% thought that near vision problem is age related,

32.4% thought it might be due to cataract,

6% don't know what the cause is

QUESTION-6		Frequency	Percent
Valid	1	472	94.4
	4	28	5.6
	Total	500	100.0

94.4% responded that near vision problem can be corrected by glasses

5.6% don't know what to do.

QUESTION-7		Frequency	Percent
Valid	1	150	30.0
	2	11	2.2
	3	39	7.8
	7	243	48.6
	10	57	11.4
	Total	500	100.0

48.6% found difficulty in maintaining the glasses while doing work,

30% are due to lack of awareness,

11.4% are not having accompanying person ,

7.8% felt lack of need of spectacles,

2.2% felt ashamed to wear spectacles.

QUESTION-8		Frequency	Percent
Valid	1	313	62.6
	2	154	30.8
	3	33	6.6
	Total	500	100.0

Q8 After diagnosed with the problem,

62.6% responded that, as and when required they will visit the ophthalmologist

30.8% said that not necessary to visit

6.6% said once in a year

- Chi square 0.132
- DF=2
- p- value less than 0.05 which is not statistically significant
- No association between level of literacy and awareness of presbyopia.
- Literacy had no impact with the awareness of presbyopia among female population.

V.DISCUSSION

According to this study, most of the females residing in rural areas are not aware of presbyopia and their level of literacy is mostly at the level of primary education in which most of them are distressed with the problems like threading the needle and cleaning the grains. so counselling and medical education is required to create awareness about presbyopia and spectacle usage. In another study, Presbyopia - A Review of Current Treatment Options and Emerging Therapies, done at Auckland, New Zealand studied by Katz JA, Karpecki PM, Dorca A et al, states that, all available presbyopic correction methods are required to the patient to accept compromises in the quality and flexibility of vision offered at different distances. As uncorrected or sub-optimally corrected presbyopia can have a considerable impact on patients' daily activities and quality of life, a unique and ideal solution, or a treatment that restores true accommodation, is a priority. In another study, Awareness of Presbyopia among Rural Female Population in North Karnataka by Gajapati CV, Pradeep AV, Kakhandaki A, Praveen Chandra RK, Rao S. 2017 where 1000 female subjects of age group 35 years and above coming from rural area (around Dharwad). They were examined and open-ended questionnaire was used to record subject's awareness and knowledge about presbyopia and their responses were analyzed concluded that high prevalence of presbyopia was seen with majority of them uncorrected due to lack of awareness or unwillingness to wear glasses.

VI.CONCLUSION

Females aged 35 years and above in rural Eluru, Andhra Pradesh, are experiencing more difficulty with near work, and they are unaware of their near vision loss.

The females in this study have a primary level of education rather than middle school or high school education, which needs to be addressed.

Hence, these individuals need counselling regarding awareness of presbyopia, the use of spectacles, and when and how to address the problems associated with presbyopia.

To reach out to nearby medical centres and health professionals after diagnosing presbyopia for further management, such as the usage of spectacles and understanding their importance in day-to-day activities.

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