



Refractive Errors and Spectacle Need Associated with Visual Symptoms In a Hospital based Population

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Submitted: 01-01-2023

Accepted: 08-01-2023

ABSTRACT

The most common causes of vision impairment and the second-most prevalent cause of blindness worldwide is refractive error. Uncorrected refractive problems account for the majority of causes of vision impairment. In this study we evaluate visual Symptoms associated with refractive error and spectacle need in a hospital based population. Henceforth, the main symptoms and spectacle requirement were noted at 4th to 6th decades of life.

KEYWORD: Refractive error, visual impairment, spectacles

I. BACKGROUND

Refractive error is the most common cause of visual impairment and the second most common cause of blindness in the world. The major causes of visual impairment are uncorrected refractive errors (43%) followed by cataract (33%). Till date information on the prevalence and causes of visual impairment is essential to set policies and priorities and to evaluate global eye health. Uncorrected REs remain the leading cause of visual impairment (VI) worldwide, and by far, spectacles remain the most common and cost-effective intervention for refractive error.

AIM: To evaluate visual Symptoms associated with refractive error and spectacle need in a hospital based population

OBJECTIVES: To correlate visual symptoms associated with refractive errors. To study the need for spectacle use among study subjects. To categorize Age related visual, Symptoms associated with refractive errors

METHODOLOGY: A hospital based, prospective, cross-sectional study was conducted in the department of ophthalmology. Sample size: 1000, Time period: May 2021 - June 2022.

The purpose of this research was explained to the participants and informed consent was obtained. A proper Proforma was made containing all the relevant information of the patients. Assessment of visual acuity using a standard illuminated Snellen's visual acuity chart or E chart with and without pinhole was done for all the patients. Detailed history of visual symptoms was taken and grouped into 3 groups

- GROUP I- Poor near sighted VA
- GROUP II- Poor far sighted VA
- GROUP III- Other visual symptoms

INCLUSION CRITERIA : Patients with visual acuity lesser than 6/18 with Snellen's chart, Age group > 5 yrs to 65 yrs, Both genders.

EXCLUSION CRITERIA: Patients with Cataract, Any previous ocular surgery, Corneal/posterior segment pathologies.

II. RESULTS :

Total of 1000 study subjects were selected in the current study. Majority, 59.5% of the study subjects were females and the remaining were males. Among 1000 study subjects who were diagnosed with refractive error were divided into three groups. Results are shown in the form of percentages, tables.



Figure 1: Age and Gender wise distribution

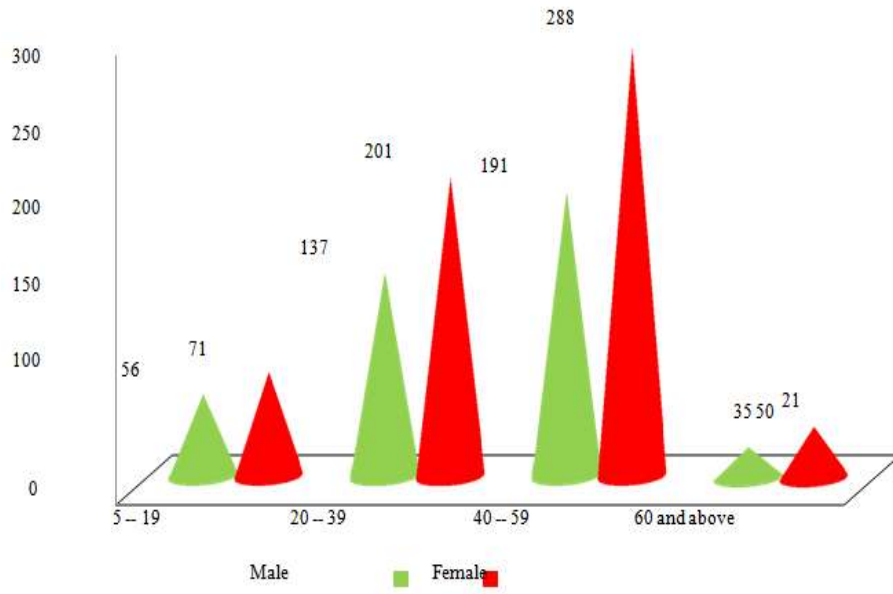


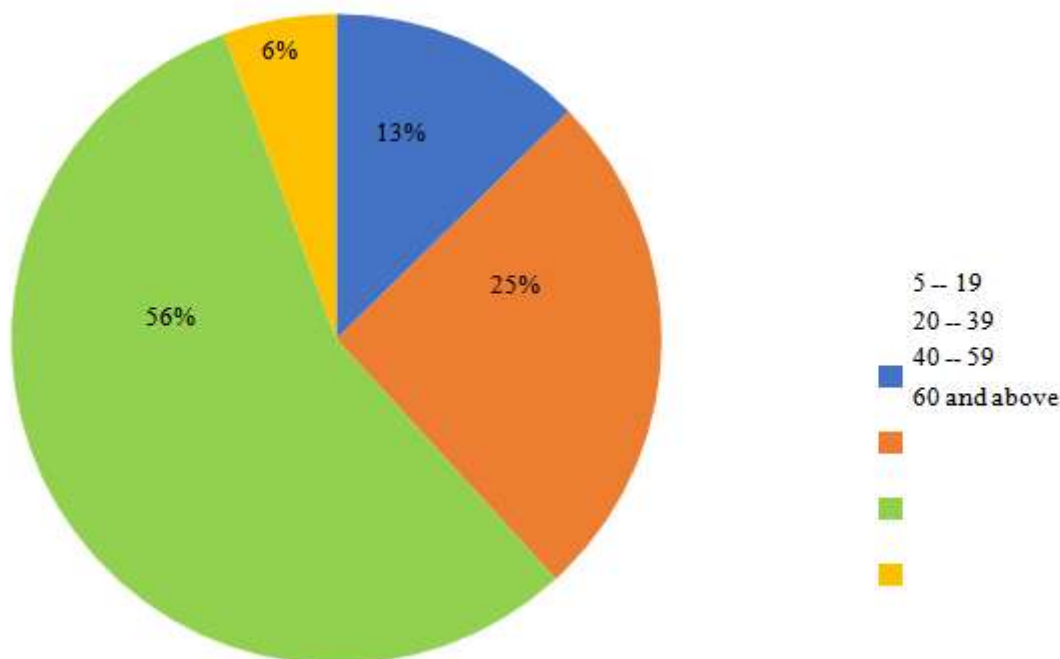
Table 1: Age group distribution based on different symptoms

Agegroup (inyears)	Group1	Group2	Group3	Total
5 - 19	37	68	22	127
20 - 39	184	119	35	338
40 - 59	216	167	96	479
≥60	29	12	15	56
Total	466	366	168	1000

Chi square = 42.08 with a p value of 0.001 (Statistically Significant p<0.05)



Figure 2: Spectacle requirement among the study subjects



III. DISCUSSION

Primary care physicians can easily pick up the problem of refractive error if careful history is taken for blurring of vision and other associated symptoms such as headache while studying, ocular pain/discomfort, brow ache, photophobia. Refractive error, especially presbyopia is very common among people of 40 years and older. The present study provides the hospital-based data on the pattern of refractive errors based on symptoms of patients presenting to the ophthalmology OPD of a medical college in Southern coastal region of India. A large need for spectacles was observed especially among the elderly, reaching 86.41% between 40 and 59 years of age.

IV. CONCLUSION

The need of spectacle usage was found to be high among the age group of 40–59 years. The findings from this study have given the magnitude and pattern of refractive errors based on symptoms among the patients attending the Ophthalmology Department of this Medical College.

V. RECOMMENDATIONS

1 . It is important for primary care physicians to know the magnitude and identify refractive errors based on various symptoms among the patients attending a health care centers since refractive error is an established and significant public health problem.

2 . Periodic collection of statistics on the magnitude and pattern of refractive errors will help in designing plans to tackle this common disorder and the complications thereof in the community and the state

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