

Evaluation of Causes of Visual Impairment Among Bespectacled Between the Age 18-23: A Study from Tamil Nadu, India

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Abstract:- Visual impairment is internationally related to severe public health, social, and economic challenges. Uncorrected refractive error is one of the main targets of the global movement to end preventable visual disability, as it is a treatable source of vision impairment. With precise information about the prevalence and underlying causes of vision impairment in the general population, health organizations may find it simpler to develop infrastructure and human resource strategies, as well as to distribute resources properly. The design of screening programs to identify individuals who are more vulnerable to eye issues may also be facilitated by having this knowledge. Wearing spectacles, also called glasses, is the practice of wearing frames with lenses in front of the eyes, usually with the intention of improving vision. There are additional reasons to wear glasses, including fashion, eye protection, and concealing visual defects. Even with the rising popularity of contact lenses and refractive surgery, wearing glasses is still the most prevalent technique to correct refractive difficulties. Despite its many built-in advantages, namely the capacity to control usage, spectacles do have some significant disadvantages. Many people who require glasses are unable to afford them, and if they are prescribed incorrectly, they may cause irritation to the eyes. Refractive errors are a major cause of visual impairment worldwide. People who lack professional skills in eye care or dispensing have abused the system due to irregularities in the distribution of spectacles.

Keywords: Eye Infection, Diet, Usage of Gadgets, Eye Cosmetics.

I. INTRODUCTION

Visual impairment is internationally related to severe public health, social, and economic challenges. Uncorrected refractive error is one of the main targets of the global movement to end preventable visual disability, as it is a

treatable source of vision impairment. With precise information about the prevalence and underlying causes of vision impairment in the general population, health organizations may find it simpler to develop infrastructure and human resource strategies, as well as to distribute resources properly. The design of screening programs to identify individuals who are more vulnerable to eye issues may also be facilitated by having this knowledge. Wearing spectacles, also called glasses, is the practice of wearing frames with lenses in front of the eyes, usually with the intention of improving vision. There are additional reasons to wear glasses, including fashion, eye protection, and concealing visual defects. Even with the rising popularity of contact lenses and refractive surgery, wearing glasses is still the most prevalent technique to correct refractive difficulties. Despite its many built-in advantages, namely the capacity to control usage, spectacles do have some significant disadvantages. Many people who require glasses are unable to afford them, and if they are prescribed incorrectly, they may cause irritation to the eyes. Refractive errors are a major cause of visual impairment worldwide. People who lack professional skills in eye care or dispensing have abused the system due to irregularities in the distribution of spectacles.

II. PATHOPHYSIOLOGY

Refractive errors are one type of visual problem that reduces the sharpness of vision. They arise when the ocular form obstructs the appropriate focus of the retina. One of the most common types of vision impairment is a refractive defect. There are four types of refractive errors. Nearsightedness, often known as myopia, makes distant objects appear blurry. Those who are farsighted, or hyperphobic, see hazy nearby objects. The appearance of distant and nearby objects might be blurred or distorted by astigmatism. Presbyopia affects people in their middle age and beyond who have problems seeing up close. The most common symptom is blurred vision. Headaches, eye strain,

headaches around bright lights, squinting, double vision, hazy vision, headaches, and difficulty focusing when reading or using a computer are some other symptoms. It's possible that some people are unaware that they have refractive issues. Ocular exams on a regular basis are crucial. Age of the lens, length of the eyeball, and problems with the shape of the cornea can all lead to refractive errors.

III. MATERIALS AND METHOD

This study was conducted at the Sree Ramakrishna Medical College of Naturopathy and Yogic Sciences and Hospital in Kulasekharam, Tamil Nadu, India. The age range of the female participants in this study is 18 to 23. After the study's goals were explained, vocal agreement was obtained. This survey had 30 responses. The survey consists of 30 questions. The questionnaire included parameters about eye infections, low light, pain, makeup, food, and device use. Unwilling or obstructive female volunteers were excluded from the study. It was discovered that even though very few individuals wore glasses, many of them had inaccurate prescriptions. Concentrating on the problems pertaining to visual impairments caused by refractive error is crucial. It is critical to concentrate on the problems

connected to vision impairment caused by refractive error. Finding long-term eye screening programs, primary refractive services, and public education would help lessen the burden of refractive errors.

IV. RESULT

The age range of the female respondents was 18 to 23. There were 30 women in total. Table 1.1 shows that 96.66% of people use the specs every day, whereas 3.33% do not use specs. Any eye infection is 16.66%, and 83.33% do not have this symptom. Signs of low vision are 53.33% and 46.66% of these symptoms are absent. 70% of people with long sight symptoms and 30% without the symptoms of long sight. Double vision symptoms, 20% and 80%, do not have this symptom. 50% of headaches are common. 53.33% of parents or grandparents wear spectacles, whilst 46.66% do not wear spectacles. Cleaning the specs 23.33% should be done frequently, and 76.66% do not cleanse the specs. 56.66% of respondents checked their eye power at least once every six months, whereas 43.33% did not check. 13.33% did eye operations, while 86.66% were not. 10% of people wear specs for fashion purposes, whilst 90% do not wear specs for fashion purposes.

Table 1 Causes of Visual Impairment among Bespectacled between the Age 18-23

Sl. No	CONTENTS	YES%	No%
1	Using specs daily	96.66%	3.33%
2	Have any eye infection	16.66%	83.33%
3	Have the symptoms of short sight	53.33%	46.66%
4	Have the symptoms of long sight	70%	30%
5	Have the symptoms of double vision	20%	80%
6	Have headaches frequently	50%	50%
7	Parents or grandparents wearing specs	53.33%	46.66%
8	Cleanse the specs frequently	76.66%	23.33%
9	Check the eye power at least once in six month	56.66%	43.33%
10	Have you done any operation before	13.33%	86.66%
11	Wear specs for fashion purpose	10%	90%
12	Use lens instead of wearing specs	36.66%	63.33%
13	Wash the eyes frequently	63.33%	36.66%
14	Have the awareness of taking vitamin A rich foods	56.66%	43.33%
15	Using phones frequently	50%	50%
16	Spend a day without specs	23.33%	76.66%
17	Have squint eye	10%	90%
18	Have eye dryness	36.66%	63.33%
19	Use any cosmetics for eye	43.33%	56.66%
20	Work in computers	3.33%	96.66%
21	Using any eye drops	13.33%	86.66%
22	Have tears frequently	33.33%	66.66%
23	Have eye boogers while wake up	43.33%	56.66%
24	Wearing specs from childhood	53.33%	46.66%
25	Have eye pain while using gadgets	26.66%	73.33%
26	Have double vision	6.66%	86.66%
27	Have the symptoms of cataract	10%	90%
28	Eye irritation while concentrating at one point	66.66%	33.33%

29	Working in dim light	10%	90%
30	Have itching sensation	36.66%	63.33%

Instead of using spectacles, use lenses. 36.66% and 63.33% of people wear specs instead of lenses. Wash their eyes often 63.33% and not regularly wash their eyes 36.66%. Being conscious of eating foods high in vitamin A, 56.66% and 43.33% did not know that they should eat foods high in vitamin A. 50% of people use their phones often. Take a day off from wearing spectacles. 76.66% and 23.33% do not go a day without their glasses. Squint eyes 10% and 90% of people do not have squint eyes. 36.66% have eye dryness and 63.33% do not have these symptoms. Using any kind of eye makeup, 43.33% and 56.66% do not wear any eye makeup. Utilize computers for work, 3.33% and 96.66 % of people do not utilize computers. 13.33% of people use eye drops, while 86.66% don't use eye drops. Often, they cry; 33.33% and 66.66 % do not cry often. Of those who wake up with eye boogers, 43.33% and 56.66% do not have this symptom. 53.33% of those with childhood wear glasses , whilst 46.66% do not wear specs during childhood. Using devices can cause eye strain, 26.66% and 73.33% of people report no eye pain when using electronics. 6.66% of people have double vision, whereas 86.66% do not have this double vision. 10% of people have cataract symptoms, while 90% do not have this symptom. At one point, 66.66% of people had eye irritation when concentrating, but 33.33% of people did not have this symptom. 10% worked in dim light and 90% did not work in low light. Feel itching 36.66% and 63.33% do not experience itching.

V. DISCUSSION

The majority of persons who use glasses every day, 96.66%, have eye infections, 16.66%, whereas more people, 53.33%, have short sight symptoms and more than 70% have long sight symptoms, and 50% often get headaches. Parents or grandparents wear spectacles 53.33%. 76.66% are aware that they should clean their glasses frequently. 56.66% check their eyesight at least once every six months and 90% do not wear glasses for fashion. Just 36.66% of people wear lenses instead of glasses, and 63.33% do not use lenses. 63.33% of people clean their eyes more frequently, and 50% use their phones. Only 10% have squinted eyes. More than 43.33% do not know that they should eat foods high in vitamin A. Have eye dryness 36.66% and use makeup on the eyes 43.33%, and cry a lot 33.33%, and also acquire eye boogers upon waking up 43.33%. Have eye pain from using devices 26.66% and have eye irritation when concentrating 66.66%, and also experience itching 35.66%.

VI. CONCLUSION

Based on our findings, the primary reason for the visual impairment was refractive error. Among those who used spectacles, the percentage of incorrect prescriptions was high and the rate of wearing them was low. One major cause of vision impairment was uncorrected refractive error. It is important to focus on the issues surrounding refractive error-related visual impairment. The burden of refractive

errors should be decreased by identifying long-term eye screening programs, awareness of diet, primary refractive services, and public education.

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