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KNOWLEDGE AND AWARENESS ON WEARING SPECTACLE/LENS AMONG 18-25 YEARS OF INDIVIDUAL

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ABSTRACT:

Refractive errors is the eye's inability to clearly focus light rays on the retinal plane. Certain refractive errors like myopia, hyperopia, presbyopia and astigmatism. Relief from refractive error associated with the use of prescribed spectacles and contact lenses.In 2006, 153 million people were living with uncorrected refractive error, as reported by the World Health Organization. The aim of this study was to create awareness on wearing spectacles among 18-25 years of individuals. This is a cross sectional survey based study and a set of questionnaires was prepared to analyze the knowledge and awareness of wearing spectacles among 18-25 years of individuals of south India and it was circulated. It has a sample size of 100 participants. Once the participants completed filling the survey, all the data were compiled for statistical analysis. It is evident from the study conducted that most of the people use spectacles to clear the refractive error and it is clear that most of them are aware about the consequences and treatment modalities of the refractive error and the use of spectacles. According to the above survey we conclude that the students are aware of wearing spectacles.

INTRODUCTION

Correction of visual impairment due to uncorrected refractive errors is a priority of Vision 2020 (Ayanniyi *et al.*, 2014)). Refractive errors means it is the eye's inability to clearly focus light rays on the retinal plane (Patel and West, 2007). Certain refractive errors like myopia (nearsightedness), hyperopia (farsightedness), presbyopia (loss of near vision with age), and astigmatism (Rosner and Belkin, 1987). Relief from refractive error associated with the use of prescribed spectacles and contact lenses, and refractive surgery (Pascal, Ansah and Nartey, 2017),(Aldebasi, 2011). Patient education is paramount in ensuring compliance and the eye care practitioner has a major role to play in this aspect (Organization and Others, no date). In 2006, 153 million people were living with uncorrected refractive error, as reported by the World Health Organization. Of these, 13 million are children and 45 million are adults (Dandona *et al.*, 2001). In addition, visual impairment due to uncorrected refractive error has been estimated to affect 200 – 250 million people. In future, to reduce problems in this kind of situation the public have to focus on prevention programs and to comply with recommended treatment plans

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Nowadays contact lenses can be used as a corrective, cosmetic or therapeutic lens usually placed on the cornea (Unnikrishnan and Hussain, 2009)(Lee *et al.*, 2000). The main treatment modality for refractive errors is spectacle correction because spectacles remain the commonest and relatively cheapest form of refractive errors correction (Ayanniyi *et al.*, 2010)(Dandona *et al.*, 2002). A side spectacle contact lens can also be used to correct refractive errors. The study explored knowledge and awareness on wearing spectacles among 18-25 years of individuals in south India. The findings will help us to be geared towards altering them or strengthening them and also give baseline information for further study to be conducted on similar topics.

The purpose of this study is to assess the knowledge and awareness in wearing spectacles/lens among 18-25 years of individuals.

MATERIALS AND METHOD

This is a cross sectional survey based study and a set of questionnaires was prepared to analyze the knowledge and awareness of wearing spectacles among 18-25 years of individuals. Participants who wore spectacles or lenses were included in this study. The sample size chosen for this study was 100. Before the start of the survey, a detailed explanation of the study was shared with the participants. Once the participants completed filling the survey, all the data were compiled for statistical analysis.

RESULTS AND DISCUSSION:

The present **study** analyses the advantages and disadvantages of wearing spectacles among 18-25 years of individuals. Around 67% of the participants were aware of using spectacles. Figure 1 showing the distribution of participants who started to wear spectacles at different age groups: 19% of the study participants started to wear spectacles at the age group of 17-20 years and 51% of the study participants started to wear spectacles at the age group of

20-25 years. At this age they start to watch or use smartphones, computers etc. Figure 2 shows responses to the question that the power of the eye increases or decreases: 43% of the study participants responded that power of the eye increases and 57% of the study population responded that power of the eye decreases. Figure 3 showing responses to the awareness about intake of dietary nutrition to maintain the power of the eye: 60% of the study participants were aware of intaking dietary nutrition to maintain power of the eye and 40% of the study population were not aware of intaking dietary nutrition to maintain power of the eye. Figure 4 showing responses to the question about the reason for losing their eyesight: 11% of the participants responded less vitamin intake, 64% of the participants say it is due to aging, 5% of the participants responded that it is due to watching mobile, television, laptop etc and 20% of the participants responded that it is due to heredity. Figure 5 shows responses to the question that the specific time that they really need to use spectacles: 60% of the participants use spectacles when they watch TV, 36% of the participants use spectacles when they watch movies and rest 4% of the participants use spectacles when they read books. Figure 6 shows responses to the awareness about dietary food products that maintain the eye power where 10% of the participants were aware of intaking egg to maintain power of the eye, 69% of the participants were aware of intaking fish and carrot to maintain power of the eye, 10% of the participants were aware of intaking almond to maintain power of the eye and 10% of the participants were aware of intaking chicken to maintain power of the eye,

Eye is a compact organ of sense of sight. Sight is an important indicator of health and quality of life (Wang *et al.*, 1994). Eye is the most precious human organ for the function of vision, expression and beauty (Wensor, McCarty and Taylor, 1999). Vision is an integral part of effective communication and learning. Good vision is an important part of education. A child's eyes are always used in the classroom for reading, computer usage and chalkboard work. The more educated people are, the more interest and certainly more demands on health services are seen (Senthilkumar *et al.*, 2013) . The correlation between the degree of awareness to visual problems and the level of education has been confirmed by many studies throughout the world.

The present study shows a few people intake nutrition to maintain their eye power. From this study it is clear that 60% of people were aware and know about the use of spectacles in a positive way (Naidoo *et al.*, 2003). And they try to avoid wearing spectacles by taking dietary food and they are also aware that they lose their eyesight due to watching tv, laptop, cellphones, less vitamin intake etc (Ak, 2013) . Some people between 18-25 years of age start to face their challenges in academic studies and they start to use computers, laptop for a long time and this could cause refractive error (Pokharel *et al.*, 2000). Publicity and public education to increase the level of awareness to refractive error correction (Chandramohan *et al.*, 2011). More studies and especially more focused ones are needed to investigate the problem of refractive error prevalence and compliance in order to be able to design efficient programs for the combat of blindness and low vision in the country.

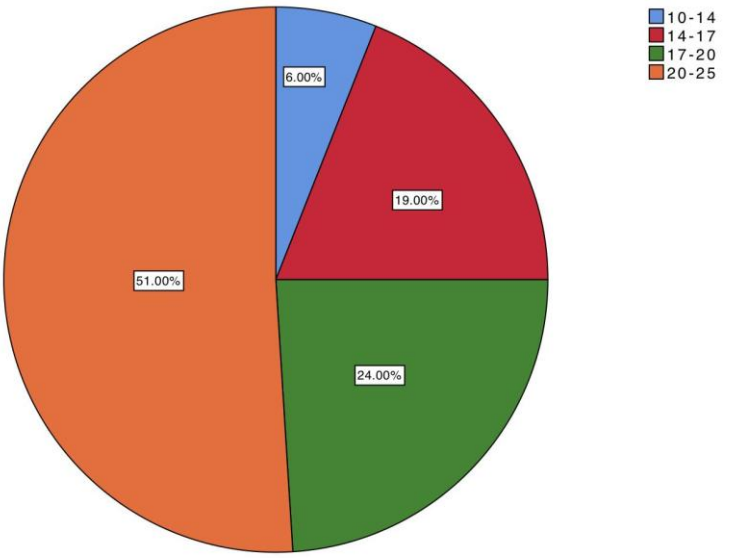

Figure 1: Pie chart showing the distribution of participants who started to wear spectacles at different age groups where 6% of the study participants (blue) started wear spectacles at the age group of 10-14 years, 19% of the study participants (red) started to wear spectacles at the age group of 14-17 years, 19% of the study participants (green) started to wear spectacles at the age group of 17-20 years and 51% of the study participants (orange) started to wear spectacles at the age group of 20-25 years. At this age they start to watch or use smartphones, computers etc.

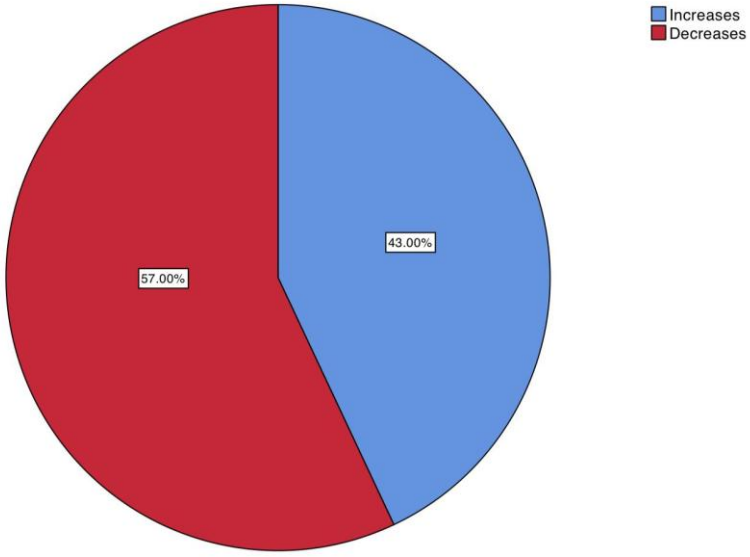

Figure 2: Pie chart showing responses to the question that the power of the eye increases or decreases where 43% of the study participants (blue) say that power of the eye increases and 57% of the study population (red) say that power of the eye decreases.

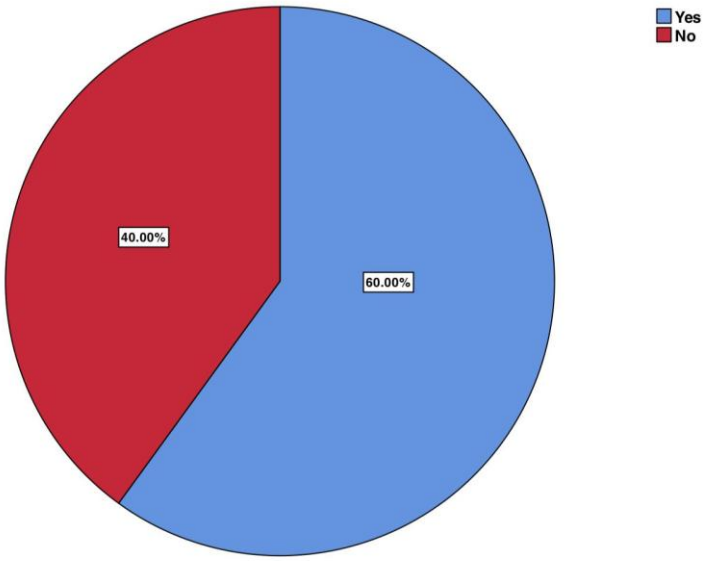

Figure 3: Pie chart showing responses to the awareness about intake of dietary nutrition to maintain the power of the eye where 60% of the study participants (blue) were aware of intaking dietary nutrition to maintain power of the eye and 40% of the study population (red) were not aware of intaking dietary nutrition to maintain power of the eye.

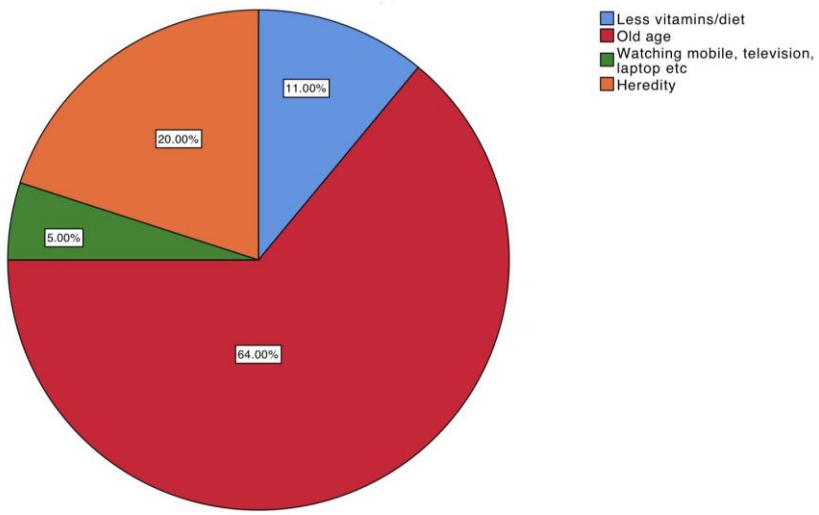

Figure 4: Pie chart showing responses to the question about the reason for losing their eyesight were 11% of the participants (blue) say less vitamin intake, 64% of the participants (red) responded it is due to aging, 5% of the participants responded that it is due to watching mobile, television, laptop etc and 20% of the participants responded that it is due to heredity.

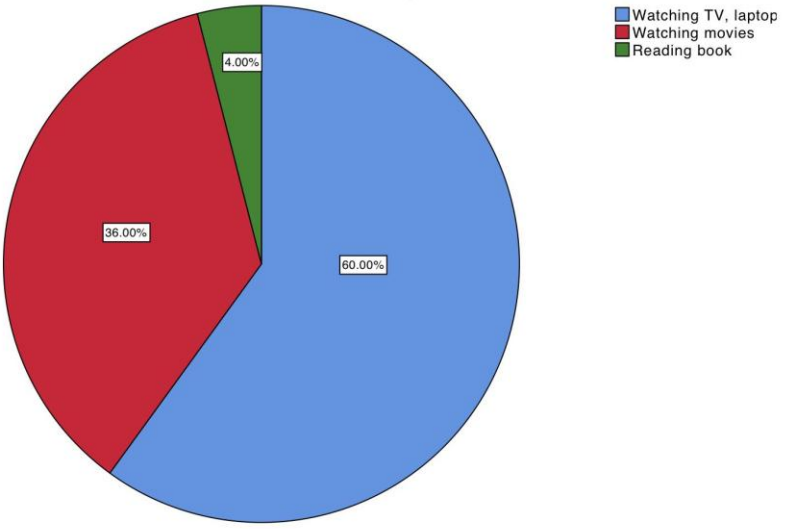

Figure 5: Pie chart showing responses to the question that the specific time that they really need to use spectacles where 60% of the participants (blue) use spectacles when they watch TV, 36% of the participants (red) use spectacles when they watch movies and rest 4% of the participants (green) use spectacles when they read books.

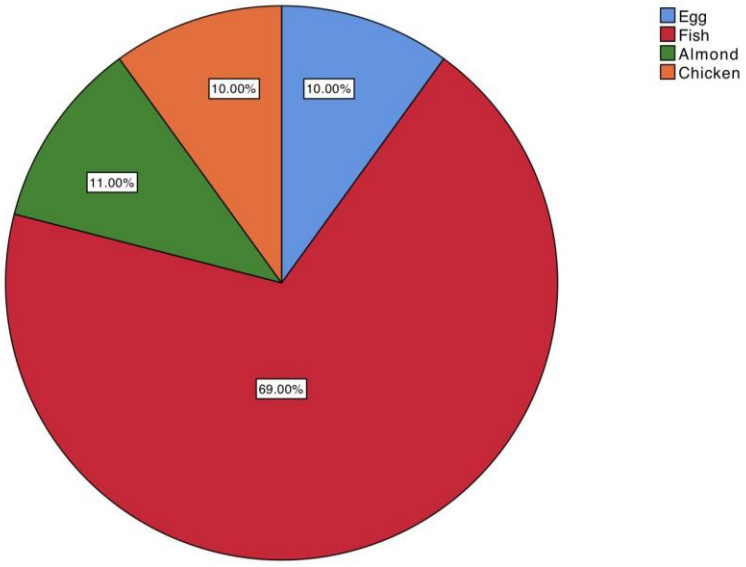

Figure 6: Pie chart showing responses to the awareness about dietary food products that maintain the eye power where 10% of the participants (blue) were aware of intaking egg to maintain power of the eye, 69% of the participants (red) were aware of intaking fish and carrot to maintain power of the eye, 10% of the participants (green) were aware of intaking almond to maintain power of the eye and 10% of the participants (orange) were aware of intaking chicken to maintain power of the eye,

CONCLUSION

According to the above survey, it is evident that the majority of people are aware of the use of spectacles and the way to maintain eye power by diet and

other ways also. So this study may help people to be more conscious of their eye health.

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CONFLICT OF INTEREST
The authors declare no conflict of interest

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