

## EFFECT OF PSYCHOLOGICAL IMPLICATIONS ON LIFESTYLE FOR DIFFERENT AMOUNT OF DEVIATION FOR ALTERNATE ESOTROPIA

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### Abstract

**Purpose:** The aim of the present study is to compare the effect of Psychological Implications in different amount of deviations in Alternate Esotropia.

**Methods:** Prospective, Cross sectional and observational study was performed at tertiary eye care centers. Subjects with Ocular deviation between 10 to 40 prism diopters, Corrected distance Visual Acuity should be greater than 6/18 and Age should be between 10 to 40 years of age were included in the study. Questionnaire was prepared on the effect of Psychological Implications on the Lifestyle in presence of Ocular deviation. Response score of the subjects were noted and Mean score of the responses were compared in different amounts of deviation. Data was analyzed using SPSS software version 20.

**Results:** 50 subjects were included in the study. Out of that, 28 subjects were included in 11-20 age group, 18 subjects in 21-30 and 4 subjects were in the age group of 31-40 years. 54% subjects were Females and 46% were Males. Comparison of mean score of Questions on Psychological Implications for different amount of deviation for Alternate Esotropia was analyzed and it shows that with increasing amount of Ocular deviation, Psychological Implications hampers more.

**Conclusions:** In the ocular deviation of Alternate Esotropia, as the amount of ocular deviation increases, Psychological Implications hampers proportionately.

**Key Words:** Alternate Esotropia; Amount of Deviation; Psychological Implications

### Introduction

#### Methodology

50 subjects were included in the study. Prospective, Cross sectional and observational study was performed at tertiary eye care centers. Subjects with Ocular deviation between 10 to 40 prism diopters, Corrected distance Visual Acuity should be greater than 6/18 and Age should be between 10 to 40 years

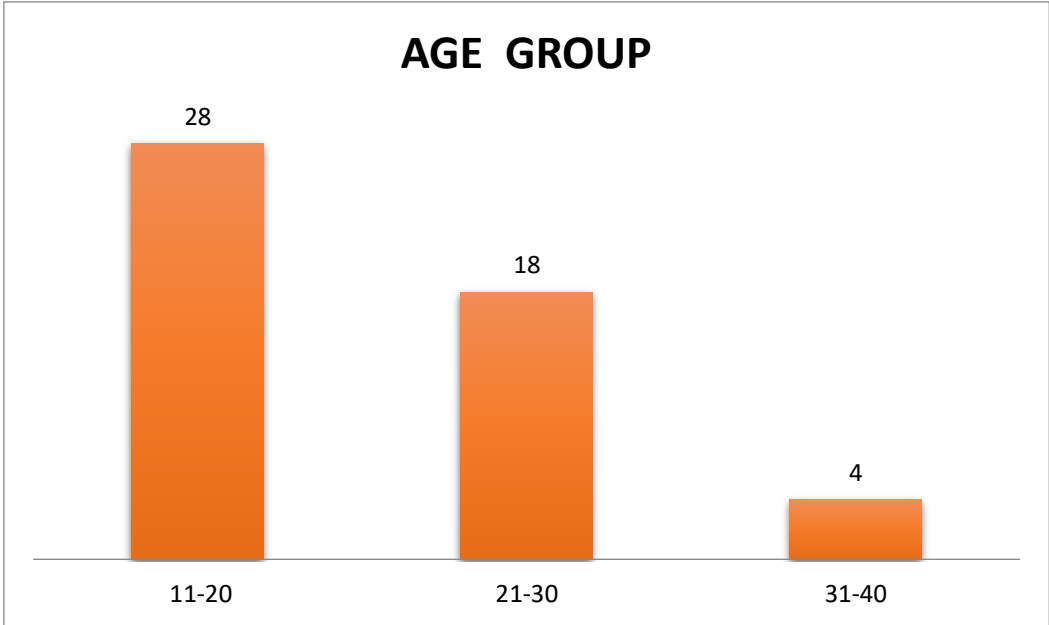
of age were included in the study. Individuals with any other systemic disease (specially which can affect study), Individuals with any other Ocular Pathology, with any active ocular infection, any ocular anomalies like Corneal Scar etc, ocular deviation if less than 10 degree and Significant amount of amblyopic patient were excluded from the study. Full refractive correction along with detailed

fund us evaluation was performed in each and every patient. All visual parameters were taken with full Refractive correction. Questionnaire was prepared on the effect of Psychological Implications on the Lifestyle in presence of Ocular deviation. Options in the Questionnaire was kept using Likert 5-point scale system. Test – Retest Reliability was performed, and its score is 0.8. Response score of the subjects were noted and Mean score of the responses were compared in different amounts of deviation. Data was analyzed using SPSS software version 20.

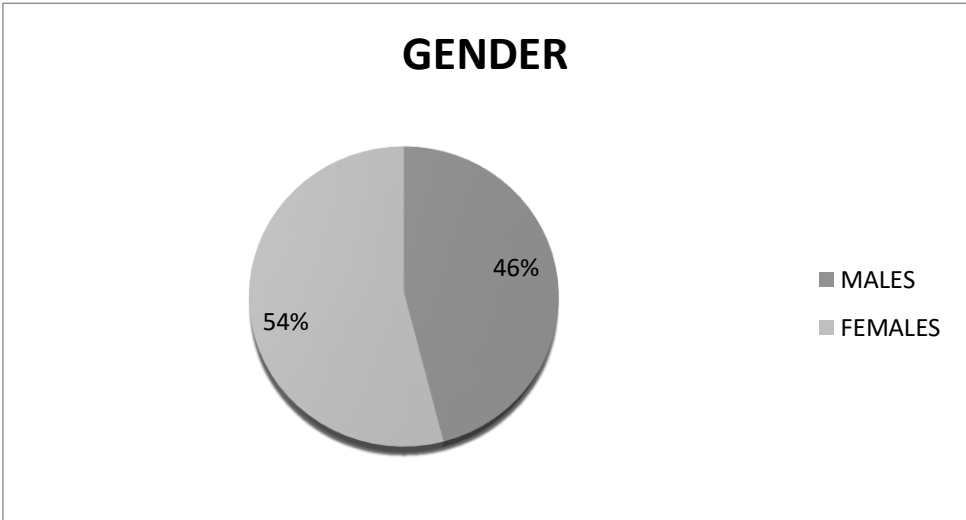
## Results

50 subjects were included in the study. Graph 1 shows age wise distribution of the subjects. It shows that 28 subjects were included in 11-20 age group, 18 subjects in 21-30 and 4 subjects were in the age group of 31-40 years. Graph 2 shows Gender wise distribution of the subjects. 54% subjects were Females and 46% were Males. Graph 3 shows comparison of mean score of Questions on Psychological Implications for different amount of deviation for Alternate Esotropia. Mean score of Questionnaire in the ocular deviation of 11-20, 21-30 and 31-40 is 10.5, 12 and 15 respectively. It shows that with increasing amount of Ocular deviation, Psychological Implications hamper more.

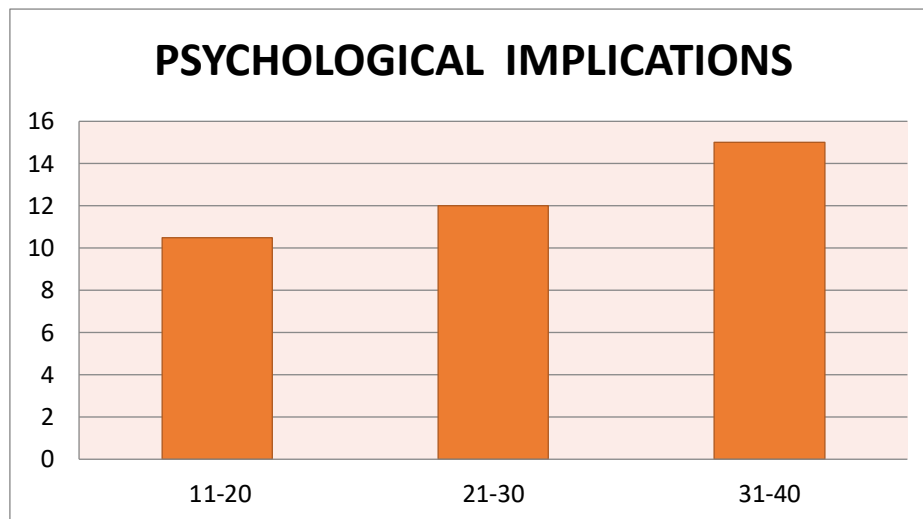
Graph 1: Shows Age Wise Distribution of the Subjects



Graph 2: Shows Gender Wise Distribution of the Subjects



**Graph 3:** Shows Comparison of Mean Scores of Questionnaire in Different Amounts of Deviation in Alternate Esotropia



Ocular deviation	Mean score
11-20	10.5
21-30	12
31-40	15

### Discussion

In the Ocular deviation of Alternate Esotropia, mean score of Questions (Effect of Psychological Implications on Ocular deviation) for 11-20, 21-30 and 31-40 Prism Diopters are 10.5, 12 and 15 respectively which shows that maximum deterioration of mean score of questions is in 31-40 Prism Diopters of Alternate Esotropia. With increasing Ocular deviation proportionately, image is shifted from the foveal region and thus deterioration is present. The present study shows that as amount of deviation increases, Psychological Implications will also hamper more.

### Conclusion

In the ocular deviation of Alternate Esotropia, as the amount of ocular deviation increases, Psychological Implications hampers proportionately.

#### Consent

Oral/ written consent was obtained from patient as well as from tertiary eye care centers.

#### Ethical Approval

It is not applicable.

#### Competing Interests

Authors have declared that no competing interests exist.

### References

- 1) Surendra P Sah et al.: Health-Related Quality of Life (HRQoL) in Young Adults with Strabismus in India. *Journal of Clinical and Diagnostic Research*.2017; 11(2).1-4.
- 2) John R. Economides et al.: Variability of Ocular Deviation in Strabismus. *JAMA Ophthalmol*. 2016 January 1; 134(1). 63–69
- 3) Changsen Tu et al: Impact of strabismus on the quality of life of Chinese Han teenagers. *Dove Press*. 2016;10 .1021–1024
- 4) Hui Zhu et al.: Association between Childhood Strabismus and Refractive Error in Chinese Preschool Children. *Plos One*, March 2015
- 5) Zhale Rajavi et al.: Prevalence of Colour Vision Deficiency and its Correlation with Amblyopia and Refractive Errors among Primary School Children. *Ophthalmic and Vision Research*, 2015; 10(2).130-138.
- 6) Anika K. Tandon et al.: Binocular Inhibition in Strabismic Subjects is Associated with Diminished Quality of Life. *American Association for Pediatric Ophthalmology and Strabismus*, October 2014; 18 (5). 423-426

- 7) Ye et al.: Strabismus genetics across a spectrum of eye misalignment disorders. *Clinical genetics*, 2014; 86. 103-111
- 8) Paul G. Sanfilippo et al.: Heritability of Strabismus: Genetic Influence Is Specific to Eso-Deviation and Independent of Refractive Error. *Twin Research and Human Genetics*.2012: 15(5).624-630.
- 10) Susan Cotter et al.: Risk Factors Associated with Childhood Strabismus: The Multi- Ethnic Pediatric Eye Disease and Baltimore Pediatric Eye Disease Studies. *American Journal of Ophthalmology*. 2011 November;118(11): 2251–2261.
- 12) Sarah R. Hatt et al.: Development of a quality of life questionnaire for adults with strabismus. *Ophthalmology*. 2009 January; 116(1).139.
- 13) A.G. kocak-altintas et al.: Visual Acuity and Colour Vision deficiency in Amblyopia. *European Journal of Ophthalmology*, 2000; 10(1). 77-81
- 14) M. Abrahamsson et al.: Inheritance of strabismus and the gain of using heredity to determine populations at risk of developing strabismus. *Acta Ophthalmol. Scand*. 1999: 77.653–657
- 15) ALAN W. FREEMAN et al.: Components of Visual Acuity Loss in Strabismus. *Vision research*, 1996; 36 (5). 765-77

