

Impact of Persistent Refractive Amblyopia amongst School-Children in North India: A Population-Based Observational Study of Childhood Visual Deficit and Its Correlation with Heterophoria & NPC

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Aim:

The aim and purpose of this population-based cross-sectional study was to determine the impact of persistent refractive Amblyopia and its correlation with heterophoria as well as NPC (Near point of convergence) in school-children in Etawah, UP.

Materials & Methods:

This population-based cross-sectional study was conducted in the govt. schools during July to December, 2019. Total 2966 subjects were enrolled by exhaustive-stratified sampling procedure to represent the underlying population. All were subjected to eye examination (Monocular LogMAR visual acuity, objective & subjective refraction, cover test, PBCT & NPC) and the responses/ data were recorded & evaluated with the Pearson Chi-square test in IBM SPSS version 21, to know the prevalence and the major cause of Amblyopia their correlation with Heterophoria & NPC in those subjects.

Results:

ROut of 2966 subjects (Males=1594 & Females=1372), 36 subject, (1.21%) were having amblyopia. The common symptoms including headache, watery eyes, itching, and redness of eyes were

observed. Commonly experienced symptoms (statistically significant with the Pearson Chi-square test in IBM SPSS version 21) amongst amblyopes (in order of prevalence) were Headache (100%, $p<0.05$), Watery eyes (83.3%, $p<0.05$), Itching (41.6%, $p<0.05$), Redness (5.5%, $p<0.05$). Statistically highly significant ($p<0.05$) correlation was found between amblyopia & Heterophoria as well as NPC with the BCVA.

Conclusion:

Amblyopia prevalence persisting beyond traditional treatment ages was significantly higher amongst school-children. Early detection of the cases of amblyopia by the eye screening at the time of admission in the school with the help of optometrists may prevent the bad consequences.

Keywords:

Persistent amblyopia, Amblyogenic factors, Visual impairment, Occlusion, Vision screening.

Biography:

Salal Khan is an Optometry Intern at PBMA's H. V. Desai Eye Hospital from India