

Influence of Parental Factors on Childhood Myopia: A Case Control Study

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Background

Nearsightedness, or myopia, as it is medically termed, is a vision condition in which close objects are seen clearly, but objects farther away appear blurred. Nearsightedness occurs if the eyeballs are too large or the cornea, the clear front cover of the eye, has increased curvature. As a result, the light entering the eyes isn't focused correctly and distant objects look blurred. Nearsightedness is a very common vision condition. Some research supports the theory that nearsightedness is hereditary. There is also growing evidence that it is influenced by the visual stress of too much close work. Generally, nearsightedness first occurs in school-age children. Because the eye continues to grow during childhood, it typically progresses until about age 20. According to literature, some parental factors like parental myopia, duration of breastfeeding, smoking, alcoholism may influence occurrence of prevalence of myopia among school children.

Aims & Objectives

To study the influence of parental factors on childhood myopia.

Material And Methods

Study design: A community based case control study.

Study subjects: Children among age groups 7-12.

Identification of subjects: A door to door survey was conducted and 500 parents of 7-12 year old children have

been interviewed.

Data collection procedure: An identity blinded questionnaire consisting of 25 questions related to study objectives was prepared after pretesting. The parents of Vidyanagar and Padmarao Nagar, Hyderabad who had a child between the age groups of 7-12 were interviewed and responses were noted. Analysis was done by dividing the study population into two groups (myopic and non-myopic) and the responses into four categories namely influence of breastfeeding, smoking, alcoholism, overusage of NSAIDS. Chi square test of significance was applied.

Results

The incidence of myopia was seen to decline with exclusive breastfeeding till 9 months and started rising after that. 2% of children's parents gave history of consuming alcohol during pregnancy of which 50% developed myopia. Factors like parental myopia, smoking, alcohol, and regular usage of NSAIDS had significant influence as compared to the non myopic children. Though not included in the study, chicken pox during pregnancy was been observed to be having statistically significance impact.

Conclusions

All the study factors have a statistically significant impact on occurrence of myopia in children. This study will be more clear if the individual factors are studied in detail.