

Prevalence of reduced vision and its associated factors among school children of grades 6-10 in an urban school

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Introduction

Sight or vision is the ability of the brain and eye to detect electromagnetic waves within the visible range of light. A child's vision is essential to his/her success in school. When vision suffers, chances are more for school work to suffer too.

Objectives

To assess the prevalence of reduced vision and its associated factors among school children

Methods

A cross-sectional study was conducted among 197 children in Grades 6-10 in urban schools selected using the cluster sampling method. Visual acuity was measured using a standard Snellen's chart. Visual acuity of $\leq 6/9$ in at least one eye was considered as 'reduced vision'. A self-administered questionnaire assessed the potential factors associated with reduced vision such as time spent on television, computer, video games, reading and studying, hours of sleep, family history of visual defects and past history of eye infection.

Results

Majority of subjects were male (73%) and in Grade 8 (34%). The prevalence of 'reduced vision' was 42% among the children. Of them, 42% (n=84) had visual acuity of $\leq 6/9$ and $\leq 6/18$ in 8.6%. Factors associated with reduced vision were being female (51%), less than 3 hours of daily television watching (43%); more than 1 hour/day of daily computer usage (45%), more than 1 hour/day of playing video games (55%), more than 2 hours/day of studying (46%) and more than 6 hours/day of sleeping (52%); past history of infection (48%); and family history (43%). Of these, only the longer video game playing was significantly associated with reduced vision ($p < 0.05$).

Conclusions

High prevalence of reduced vision among children, mostly due to playing video games, warrants parental restriction of continuous video game play to less than one hour.