

**PREVALENCE AND SELF-AWARENESS REGARDING REDUCED VISUAL ACUITY AND COLOUR BLINDNESS AMONG SCHOOL CHILDREN IN KANDY MUNICIPAL COUNCIL AREA**

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Reduced visual acuity is a common medical problem which can be corrected by simple measures if detected at early stages of the disease. Often this condition emerges around school age. Other than being a problem in vision, reduced visual acuity by itself is sometimes a symptom of other disorders involving visual pathway.

A population based cross sectional study with an analytical component was carried out during 2013 in order to calculate the prevalence of reduced visual acuity and red-green colour blindness among adolescent school children in Sri Lanka. Assessment of their self-awareness regarding these conditions was also performed. Study was conducted in the municipal council area of Kandy with the participation of 875 grade 10 school children (male-53% and female-47%). Out of type 1AB, type 1C and type 2 schools in the government school categories three, two and one school was included, respectively. Number of participants from each type of school was calculated proportionate to the student population in each school type and students were included as clusters of classes until the expected sample was fulfilled. Visual acuity of each eye was tested separately using *Snellen* chart and red-green colour blindness was detected using *Ishihara* colour plates. A self-administered questionnaire was used to assess their self-awareness regarding the two conditions. Prevalence was calculated based on the data collected and *Chi-square* test was used to analyze the data.

Our study revealed that overall prevalence of reduced visual acuity among adolescent school children was 31.8% (n=278) with contribution of binocular and monocular reduced visual acuities being 21.4% (n=187) and 10.4% (n=91), respectively. Prevalence of red-green colour blindness among the study population is 1.7% (n=15). Prevalence of overall (p<0.001) and binocular (p<0.001) reduced visual acuity is higher among females than males. Both these differences are statistically significant. Though monocular reduced visual acuity is higher in males than females, that difference was statistically insignificant (p<0.4). The study also revealed that usage of corrective measures for reduced visual acuity is higher among individuals with binocular reduced visual acuity (34.8%) compared to individuals with monocular reduced visual acuity (4.4%), which is statistically significant (p<0.001). 41.7% (n=116) of students were aware of their state of reduced visual acuity and 13.33% (n=2) subjects were aware of their state of red-green colour blindness. It is evident that usage of spectacles or contact lenses among participants with reduced visual acuity has been positively influenced by usage of spectacles among their family members.

Findings of this study indicate the high prevalence of reduced visual acuity and lack of awareness concerning such conditions among adolescent school children. Therefore, screening and awareness programmes should be conducted to ensure proper remedial action.