

Factors associated with refractive errors among grade 10 students in government schools in Horana MOH area, Sri Lanka

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Introduction - Vision plays a key role in learning as nearly 80% of sensory information is received through sight. Visual defects are linked with poor communication skills, decreased ability to learn and low self-esteem among children. Uncorrected refractive errors is a main cause of treatable vision problems.

Objective - To determine the proportion and factors associated with refractive errors among grade 10 students at government schools in Horana MOH area, Sri Lanka.

Methodology - A descriptive cross-sectional study was conducted among 281 Grade 10 students from three selected government schools in Horana MOH area (Nov 2023–Oct 2024) using cluster sampling. Data was collected via a pre-tested self-administered questionnaire and Snellen's chart assessment. Data analysis was done using IBM SPSS software. Ethical approval was obtained from the Faculty of Medicine, University of Moratuwa.

Results - Study sample consisted of 157 (55.9%) female students, with the most prevalent age group being 15 years (64.8%). Of those examined, 111 (39.5%) students had refractive errors. However, only 42 (37.8% of those with refractive errors) were aware of their condition, and 69 (62.2%) of the students were unaware that they had refractive errors. Factors associated with having refractive errors included belonging to a non-Sinhalese race, lack of awareness of visual health, less outdoor activity time, reduced whole cereal consumption, and having a sibling with visual health impairment.

Discussion - Refractive errors are a considerable burden among Grade 10 students in government schools in the Horana MOH area, Sri Lanka, with almost two out of every five students affected. A significant proportion of these students are unaware of their condition at nearly 16 years of age. This emphasizes the need for regular school-based vision screening programs, parent education and community awareness regarding visual health.