

The Pattern of Distribution of Refractive Error among Primary School Children of Malamulele Community, Vhembe District, Limpopo Province

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ABSTRACT

Education is important for all individuals to succeed in life in today's world. It provides children with skills that will prepare them physically, mentally and socially for career purposes in the future. Approximately 85% of all learning is acquired through vision. The study has assessed the pattern of distribution of refractive error among primary school children in Malamulele community, Central Region. It employed the cross-sectional design. Cluster sampling was used to select one area under Malamulele Circuit and the primary schools. Systemic random selection was done to select participants. A questionnaire comprising of close-ended questions was completed by parents and an assessment form was used to record visual examination results of the selected children. Using the SPSS program, descriptive statistics was used to analyze the data. The total number of participants was 340, of which 138 (40.6%) were males and females were 202 (59.4%). The age of the school children ranged from 9 to 15 years. Of the 340 children a significantly high number of 70 (20.1%) were found to be having refractive error while 18 (5.3%) had pathological conditions. Myopia was the most prevalent refractive error at 60.0% (42), followed by hyperopia and astigmatism at 21.4% (15) and 18.6% (13) respectively. Ocular problems were found in 88 (25.6%) children. The significant difference between refractive error of rural and town children of Malamulele might be the socio-economic status, environmental factors such as access to computers and video games, reading and writing after school and also the school activities. Refractive error was found to be associated with public town school than public rural school. The Department of Health, private sectors and Non government organizations should strengthen the current school vision screening programmes. Free spectacles should be provided to all children with refractive error. Vision testing should be a requirement on admission of children in the first grade.

Keywords: refractive error, myopia, hyperopia, astigmatism, school vision screening