Prevalence and pattern of refractive errors among secondary schools students in sulaimaniya city-kurdistan region-iraq

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Awareness of poor visual acuity that can be treated easily and effectively in the student groups can add positively for their quality of life and quality of their study

Study design and test sample: a descriptive cross-sectional study done among students aged 14–19 years in secondary schools in sulaimani city from six secondary schools both male and female are enrolled

Aim and objectives: to determine the prevalence and pattern of refractive errors in this students group and determine the prevalence of different types of refractive errors which include (myopia, hypermetropia & astigmatism),

Subjects and methods: the total of 848 students aged 14–19 years, were examined. Examination included visual acuity testing by e chart, and refraction was done for those having visual acuity less than 6/6. The refractive errors of the students' eyes were measured using streak self -luminous retinoscopy and non-cycloplegic auto-refraction

Results: out of 848 students, 737 (86.9%) were emmetropic (normal visual acuity) and 111 (13.1%) were ametropic. Of those 111 students, myopia with myopic astigmatism was the commonest types: 41(36.9%), and 52(46.8%) students respectively. Hypermetropia found in 14(12.6%) students. Anisometropia was found in seven (6.3%) students, represents (0.8%) of the sample. Amblyopia was found in 11(10%) students, of overall sample (1.3%) had amblyopia. Only one had bilateral amblyopia. Bilateral vision correction to 6/6 was found in 81(73%) students, (9.6%) of the study sample, six (5.4%) students (0.7%) had unilateral correction to 6/6, nine (8.1%) students (1.1%) had bilateral correction to 6/9, and 15(13.50%) students, overall represents (1.8%) of them, their vision was correctable to less than 6/12. Those having glasses earlier were 35(31.50%) students represent (4.1%) of the sample while 76(68.50%) student need glasses.

Conclusion: prevalence of refractive errors was 13.1% of the sample. Simple myopia was the most prevalent refractive errors that corrected to 6/6, while. Amblyopia was more common in hypermetropic. Anisometropia was the least common of the sample.

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