

Unmet refractive need and its determinants in Shahroud, Iran

Uncorrected refractive error plays a significant role in poor vision and blindness, and its correction is the most cost-effective intervention in eye care. In this study, we report the status of the unmet refractive need and the role of economic inequality in determining the level of this need in Shahroud, Iran. This cross-sectional nested case-control study was performed on 2,190 individuals aged 10–64 years. Cases and controls were individuals with uncorrected visual acuity worse than 0.3 LogMAR in the better eye who showed at least 0.2 LogMAR improvement after correction. Cases were individuals whose presenting vision was worse than 0.3 in the better eye but improved by at least 0.2 LogMAR after correction. Controls were individuals in whom the difference between the presenting and corrected vision was less than 0.2 LogMAR. The prevalence of the unmet need was 2.7 % and it was more prevalent in women (6.2 %) than in men (1.6 %) ($p = 0.003$). There was a gap of 19.6 % between the two groups of high and low economic status. The Oaxaca-Blinder decomposition method revealed that differences in the education level of the two groups accounted for half of this gap. Spectacle usage is better in Iran than in some other developing countries; however, in this study, about 40 % of those who required spectacles did not have them.