

Commentary: Screening the future generation: A path to better future

Refractive errors are the most common type of corrective blindness in the world. Screening the young population early on will lead to a better quality of life and will reduce the unnecessary burden on families and the community. However, there exists a difference among the rural and the urban populations in terms of awareness and the importance of screening. Among the rural populations, even after the refractive error assessment, the population has misconception about the use of spectacles which presents an even bigger challenge as using spectacles is considered as disfiguring or being perceived

as a blind person. In these situations, counseling the attendants and parents is also important. Screening the school-going children will be great to combat childhood vision impairment and present a better estimate of its prevalence.

The present study aims in combating one of the main goals of the World Health Organization (WHO), childhood vision impairment. The study which screened a total of 56,988 children between the ages 4–15 years, found 2.38% to be the prevalence of refractive error (corrected and uncorrected), and myopia was found to be 2.17%. The regional childhood vision impairment was found to be 1.72%.^[1]

In a study conducted by R. Dandona *et al.*,^[2] where a total of 4,414 children from 4,876 households was enumerated, and

4,074 (92.3%) were examined, the prevalence of uncorrected, baseline (presenting), and best-corrected visual acuity of 20/40 or worse in the better eye was 2.7%, 2.6%, and 0.78%, respectively. Refractive error was found to be the cause in 61% of eyes with vision impairment, amblyopic in 12%, other causes in 15%, and unexplained causes in the remaining 13%.

In a study conducted by Triveni *et al.*,^[3] the prevalence of refractive error among the school children (6–16 years) was found to be 6.41%, with a prevalence of 7.61% in urban and 5.21% in rural areas.

In a study by Maduka-Okafor *et al.*,^[4] 198 (5.3%) children had visual impairment (20/40 or worse) with 5 (0.08%) of these blind (20/200 or worse). The uncorrected, presenting and best-corrected VA of < 20/40 (6/12) was noted in 188 (3.4%) children, 182 (3.4%) children, and 14 (0.2%) children, respectively.

In a study by Sharma *et al.*,^[5] the prevalence of uncorrected, presenting, and best-corrected visual impairment (VA \leq 6/12) in the better eye was 14.5%, 12.8%, and 0.34%, respectively. Refractive error was the principal cause (94.2%) of impaired vision and 88% of children who could achieve VA \geq 6/9 with best correction were without necessary spectacles.

In a study by He *et al.*,^[6] refractive error was the cause in 97.1% of eyes with reduced vision; amblyopia, 0.81%; other causes, 0.67%; and unexplained causes, 1.4%. Myopia (spherical equivalent, -0.50 diopters [D] or more in either eye) affected 36.8% of 13-year-olds, increasing to 53.9% of 17-year-olds.

There is a huge gap between the number of patients suffering from causes of preventable blindness and those actually getting treated for it. Social, economic, and demographic factors such as age, gender, place of residence (state or district), personal incomes, ethnicity, political and health status also reduce the potential of success of any intervention.^[7] Delivering services to underprivileged populations and those in outreach areas, including transportation to care centers, distribution logistics, surgical consumables and technology represent the main challenges in establishing comprehensive eye care systems for children and adolescents.^[7]

Studies have been instrumental in assessing and treating refractive error, and raising awareness would become easy in decreasing the burden on the society which will lead to a better standard of living.

**Arvind K Morya, Siddharam S Janti¹,
Antarvedi Tejaswini¹**

Glaucoma, Refractive, Squint, Paediatric Ophthalmology and Medical Retina Services, Department of Ophthalmology, All India Institute of Medical Sciences, Bibinagar, ¹All India Institute of Medical Sciences, Bibinagar, Hyderabad, Telangana, India

Correspondence to: Arvind K Morya,
Glaucoma, Refractive, Squint, Paediatric Ophthalmology and
Medical Retina Services, Department of Ophthalmology,
All India Institute of Medical Sciences, Bibinagar,
Hyderabad, Telangana, India.
E-mail: bulbul.morya@gmail.com

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