

ABSTRACT

TITLE OF THE ABSTRACT : School screening program – determining sensitivity and specificity of school teachers in detecting refractive errors in school children.

DEPARTMENT : Ophthalmology

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OBJECTIVES:

Determining sensitivity and specificity of school teachers in detecting refractive errors in school children by comparing optometrist as gold standard.

Test knowledge and practice of school teachers regarding refractive errors in children.

METHODS:

After permission from concerned authorities teachers are trained regarding basic structure of eye and how to test visual acuity with teacher's card which is provided to them at the time of training. Teachers are also provided with kit which contains rope of 6 meters, occlude, data collection form, training module and laminated E of >6/60 size to explain children. A questionnaire is given before and after training to assess the knowledge and practice of teachers regarding refractive errors in children.

On a pre determined date all children between classes 5th to 9th who are present at school will be screened by teacher with help of teacher card which contains E of 6/12 Snellen optotype and optometrist with help of E chart. The results of teachers are masked to optometrist

We compare results of teachers with optometrist as gold standard.

Data is entered in excel and STATA10.0 I/C is used for analysis.

RESULTS:

The sensitivity, specificity and positive predictive value of school teachers in detecting refractive errors compared to optometrist as gold standard is 66.4%, 91.8% and 45.9% respectively. School teachers have high specificity but low sensitivity but they can be used as initial screeners in benign diseases like refractive errors.

There is significant improvement in knowledge and practice of teachers regarding refractive errors in children after training ($P < 0.001$). There is no difference in knowledge and practice of teachers regarding refractive error based on age, education, type of school they teach, subject they teach spectacle usage and screened for visual impairment before.

Key words: School screening, Teacher training , Refractive errors in children