



KNOWLEDGE AND ATTITUDE OF PRIMARY SCHOOL TEACHERS REGARDING REFRACTIVE ERRORS IN SCHOOL CHILDREN

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ABSTRACT

Aim: To assess the knowledge and attitude of primary school teachers regarding refractive errors in school children.

Inclusion criteria: Government primary school teachers of both sexes and different age groups in visakhapatnam district.

Exclusion criteria: Government secondary school teachers. All private school teachers.

Materials and methods: An Institution-based cross-sectional study was conducted on 100 primary school teachers in Visakhapatnam district, between June 2018 and Aug 2018.

Results: In this study, about 72% of study participants had a favourable attitude and about 74% of primary school teachers had good knowledge regarding a refractive error in school children.

Conclusion: The results showed that majority of primary school teachers had good knowledge and attitude regarding refractive errors.

KEYWORDS : Knowledge, Attitude, Refractive Errors.

INTRODUCTION:

Refractive error is an important cause of correctable visual impairment worldwide with a global distribution of 1.75% to 20.7% among school children.^[6]

Worldwide, uncorrected refractive error is the leading cause of visual impairment.

The pattern of refractive error among children has considerable variation from one geographic location to the other which is attributable to hereditary and environmental factors.

According to world health organization, refractive error is responsible for 42% visual impairment and 3% of blindness in the world.

Undetected and untreated visual problems interfere with the one's full learning potential.

Children spend most of their time in the school and it is possible for teachers to access them easily.

This creates a good opportunity for the teachers to identify refractive errors.

Early detection and management of the refractive error is important to prevent visual impairment, blindness, and its sequela.

Knowledge of primary school teachers towards refractive error plays an important role in encouraging children to seek treatment for their eye problems, as well as to enhance eye health seeking behaviour.

Presently screening programs in schools are managed by government sector and it is carried out by DBCS with the coordination between Sarva Siksha Abhiyan (SSA) program implemented by NPCB.

AIM OF STUDY:

To assess the knowledge and attitude of primary school teachers regarding refractive errors in school children.

Inclusion criteria:

Government primary school teachers of both sexes and different age groups in visakhapatnam district.

Exclusion criteria:

Government secondary school teachers.
All private school teachers.

MATERIALS AND METHODS:

Study design and population:

An Institution-based cross-sectional study was conducted on primary school teachers in Visakhapatnam district, between June 2018 and Aug 2018.

Sample size: 100

Methods : Data was collected using self structured questionnaire.

Knowledge: The knowledge of refractive error was assessed using 9 multiple choice questions that carried a total of 9 correct responses.

Each correct response was given a score of 1 and a wrong response a score of 0.

Total points to be scored were 9 and the minimum score was 0.

A related study was used for classification of study participants' knowledge level.

Good knowledge: Individuals who responded the mean (5.1) and above of the total knowledge questions had good knowledge about refractive errors in school children.

Poor knowledge: Individuals who responded below the mean (5.1) of the total knowledge questions had poor knowledge about refractive errors in school children.

Attitude: The attitude was measured by nine questions put on Likert's scale. The questions on Likert's scale had positive and negative responses that ranged from strongly agree, agree, neutral, disagree and strongly disagree.

The scoring system used with respect to participant's responses was as follows: strongly agree 5, agree 4, neutral 3, disagree 2, and strongly disagree 1.

The responses were summed up and a total score was obtained for each respondent. The mean(36.8) was calculated and those who scored above the mean value had favourable attitude and the ones who scored less than the mean value had an unfavourable attitude towards a refractive error in school children.

RESULTS:

A total **100 government primary school teachers** who are working in Visakhapatnam District, in **66 schools across 26 mandals** took part in the study.

Among them

No of males: 38(38%)

No of females: 62(62%)

The **mean age** of study population was **47 years**.

Among 100 teachers

Knowledge

Good: 74(74%).

Poor: 26(26%).

Attitude

Favourable: 72(72%)
 Unfavourable: 28(28%)
 Among 100 teachers

Had eye examination before?

YES: 83(83%).
 NO: 17(17%).

Family members spectacle use?

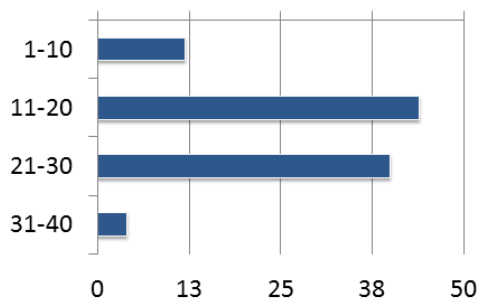
YES: 92(92%).
 NO: 8(8%).

Trained for visual screening?

YES: 80(80%)
 NO: 20(20%)

Experience

1-10 yrs: 12(12%)
 11-20 yrs: 44 (44%)
 21-30 yrs: 40 (40%)
 31-40 yrs: 4 (4%)



On applying chi-square test

There is a significant association between knowledge score and experience, with p value of 0.02.

There is also a significant association between training and attitude.

DISCUSSION:

In this study, about 74% of primary school teachers had good knowledge regarding a refractive error in school children.

In similar study done in Mangalore^[1], urban teachers had 68% knowledge and rural teachers had 72% knowledge.

This result is higher as compared to other studies in Singapore (73.4%), Nigeria (66.9%), Ethiopia (55.9%)^[7] and lower when compared to Ghana (82%), Saudi Arabia (88.99%)

The good knowledge regarding refractive error among subjects with 21-30 years of experience is more when compared to other groups.

This finding is agreed with a study done in India.^[4,5]

This is because as experience increases exposure to eye conditions in children increases.

Korani J et al. study in Andhra Pradesh^[2]

Assessed the quality of vision screening done by trained school teachers on school children.

The result of the study gives emphasis to involve school teachers in detecting vision defects and eye alignments among school children who have less access to ophthalmic care in developing countries like India.

In this study, about 72% of study participants had a favourable attitude towards a refractive error in school children.

CONCLUSION:

The results showed that majority of primary school teachers had good knowledge and attitude regarding refractive errors.

The training programs for primary school teachers must be continued to further improve their skills in visual screening.

Name :	Age & Sex :
School :	Area :
Experience :	
Duration of spectacles use :	
Do you have any eye examination before :	
Did any of your family members use spectacles :	
Are you trained for visual screening:	

ANNEXURE

Please use tick mark for answering the 10 multiple choice questions.
 Note: Refractive error means 'dhrusti lopalu'.

Q-01	How do you describe refractive errors?
[A]	Unable to focus parallel rays of light coming from infinity.
[B]	Loss of vision
[C]	I don't know
Q-02	What are the symptoms of refractive errors?
[A]	Complaining of headache and rubbing of eyes frequently
[B]	Redness of eyes
[C]	Watering of eyes
Q-03	Refractive errors occur when
[A]	Eye infections are present
[B]	Nutritional deficiencies are present
[C]	Shape of eye prevent light rays from focusing
Q-04	Risk factor for refractive errors include
[A]	Family history of refractive error
[B]	Contact with children with refractive error
[C]	Vitamin deficiency
Q-05	Refractive errors can
[A]	Not effect academic performance
[B]	Lead to poor academic performance
[C]	I don't know
Q-06	Child with refractive error can develop
[A]	Squint (mella kannu) [B] Conjunctivitis [C] I don't know
Q-07	Refractive errors affects
[A]	Only near vision
[B]	Only distant vision
[C]	Vision at different distances
Q-08	Undetected refractive errors in childhood may lead to behavioural problems & adversely affect social interaction
[A]	YES [B] NO [C] I don't know
Q-09	Can refractive errors cause blindness?
[A]	YES [B] NO [C] I don't know

ATTITUDE: For the following 9 statements, can you please tick mark one of the boxes from [Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree]

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	We can prevent the complications or impact of refractive error on children					
2	Children cannot use spectacles effectively & comfortably					
3	Refractive errors cannot be treated with eye drops					
4	School children with visual impairment can attend school					
5	Vision screening must be done when children start schooling					

6	Bullying(edipinchadam) of children with spectacles by their friends should be avoided					
7	Improper use of correctly prescribed spectacles can impose damage on children					
8	Training program on eye health should occur frequently					
9	Teachers have an important role in identifying refractive errors					

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