ORIGINAL RESEARCH PAPER

Community Medicine

KEY WORDS: rural area, eye complaints, school health

Assessment of Complaints in Eye Among School Children of Rural Block of Jhansi

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ABSTRACT

Introduction- Ocular morbidity is the spectrum of eye diseases regardless of resultant visual loss experienced by a population. The primary eye care is a vital component of the primary healthcare system. This study was done to assess the eye complaints of students.

Material and Methods- A community based cross sectional study was conducted in Badagaon block of rural area of Jhansi for 11 months from august 2016 to July 2017. Complaints were recorded in pretested questionnaire. Appropriate statistical rest were applied. Consent from principal was taken.

Results- 60% boys and 40 % girls were included, redness followed by watering are the most common complaint which are statistically significant to boys.

Conclusion - School health records should be maintained for follow up. Many ocular diseases have their origin in childhood and therefore the eye sickness goes unnoticed which causes devastating effect on ocular health.

Introduction-

As per Vision 2020- The Right to Sight- Refractive errors are a priority within the global initiative for the elimination of avoidable blindness. Most of the children having uncorrected refractive errors in rural area have poor access to the eye hospitals. Also, the children usually do not complain of their poor vision upfront. Due to lack of awareness amongst the parents and school teachers, only a handful of cases are detected at an early stage where appropriate treatment is helpful. Children in the school going age (6 - 14 years) represent over 25% of the population. Avoidable blindness in children is more important considering the number of potentially productive years that lies in front of the child [1]. An estimated 285 million people are visually impaired worldwide: 39 million are blind and 246 have low vision and an estimated 19 million children are visually impaired. Of these 12 million children are visually impaired due to refractory errors, a condition that could be easily diagnosed and corrected [2]. In India, an estimated national prevalence of childhood blindness/low vision was 0.8 per 1000 [3]. n case of school children, it is therefore important that the teachers are able to recognise changes in a child such as rubbing of eyes frequently, blinking excessively and holding books close to face which might suggest underlying eye diseases. In these cases, parents should be informed timely. School going children therefore form an important large target group, which is easy to approach and also effectiveness of health education imparted is good. Keeping the above background in mind the study was conducted to assess the eye complaints among children of school at rural area of Jhansi.

Material and Methods-

The study was conducted with an objective to know about eye complaints of school children in Badagaon block of district Jhansi (Uttar Pradesh). Out of total 8 schools in the block, 4 (two boys and two girls) were chosen randomly. Total study subjects were 1065 students (60% boys and 40% girls). All the students between 6 - 15 years of age, studying in class 1st to 10th were included in the study. Students with completed 6 years of age were only included in the study, any age below 6 or greater than 15 were excluded from the study. All concerned principals, teachers and students were briefed about the study. Each student was interviewed individually by the author in their local language. The students present on day of visit were included in the study. Two follow up visits were done for those who were absent during the first visit. After both the visits those not present during examination were excluded from the study.

Statistical Analysis-

collected data was consolidated in excel sheets and then export into SPSS (version 22. Trial) and appropriate statistical tests like chi-square along with frequency tables and proportion were applied.

Results-

Table 1- Demographic determinants of study participants (n=1075)

Variables		Frequency	Percentage
Sex	Boys	640	60%
	Girls	435	40%
Age	6-9 years	210	20%
	10-12 years	345	32%
	13-15 years	520	48%
Class	1st to 5th	450	42%
	6th to 10th	625	58%

Table 1 shows demographic characteristics of students, 60% of boys and 40% of girls were studied. The most common age group of eye complains are 13-15 years belonged to class 6th to 10 standards.

Table 2- Gender wise distribution of presenting complaints of students (n=1075)

Complaints	Sex		Total (n=1075)	X^2	p-value*
	Boys	Girls			
Redness	210	115	325	3.6	0.02
Watering	191	139	330	4.2	0.04
Headache	67	80	147	0.04	0.64
Diplopia	17	11	28	0.35	0.51
Foreign body sensation	20	17	37	0.67	0.45
Low vision	37	30	67	4.9	0.01
	542	392	934		

*P<0.05 is statistically significant

Table 2 shows gender wise distribution of eye complaints in which the most common complaint was redness seen in 28% of both and girls followed by watering of eyes in 26%. The problems are more in boys due to the fact that they are more exposed to environmental factors causing eye complaints. Except headache all complaints were more common in boys. It was seen that redness, watering and low vision ere significantly associated with boys while the association of headache with girls was not significant.

Discussion-

in the present study it was seen that boys were more than girls in rural area school. Maximum number of participants were belonged to the age group of 13-15 years with eye complaints. Most common complaint was redness seen in 28% of both and girls followed by watering of eyes in 26%. It was observed that percentage of complaints were much more than actual morbidity.

This shows the health seeking behaviour of school children in rural area. According to Seema et al except watering and low vision all complaints were common in girls. Diplopia was significantly associated with girls. The association of headache with girls was found to be borderline significant [4]. According to Linda V et al patients may use words like "cloudy vision," "a veil over my eyes" or "fuzziness" to describe diminished vision. Some may report black areas within their visual field; others may have a loss of peripheral vision or total vision loss in one eye or possibly even both [5]. Nirmalan PK et al conducted focus group discussions to determine awareness and perceptions of eye diseases in children among parents and guardians of children in a rural south Indian population. They concluded that the five most common eye problems/diseases identified by participants were hordeolum externum, pain in the eyes, watering, redness and discharge from the eyes. Interestingly, vision impairment did not figure in the top 10 problems cited by participants. Five most common expectations by participants included organisation of more community outreach programmes, provision for free treatment of eye disorders, establishment of eye care services locally, education on eye health and nutrition at the community level and distribution of medications for eye problems at the primary level [6]. Senthilkumar D et al found in their study that parents' perception was that eye problems can be treated with food such as eggs or carrots and exercises. Most of the parents perceived squint as a sign of good luck and spectacle correction as a social stigma [7]. Balasubramaniam SM et al observed that squint, redness or watering of eyes, eye irritation, headache, family history of ocular diseases, severity and repetitiveness of symptoms facilitate parents seeking eye care for their wards/children [8]. William described in an article that some conditions as headache in the absence of other localising neurological signs or symptoms (eg, diplopia or papilledema), rarely require referral and the parents can often be reassured as to the benign nature of these conditions [9].

Conclusion –

Eye screening should be done at the time of entry to school and periodic evaluation of eye check ups programme should be done. A good functioning referral system should be attached to the school health services. School health records should be maintained for follow up. Many ocular disease have there origin in childhood and therefore the eye sickness goes unnoticed which causes devastating effect on ocular health.

Conflict of interest- none declared

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