



Original Article

Awareness and Perception Level in Parents of Children Having Eye Disease in Remote Area (Koh-i-Sulaiman) of Baluchistan

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Purpose: To check the awareness level of the parents of children having common eye problems like blurry vision, refractive error, anisometropia etc. in Koh-i-Sulaiman (a remote area of Baluchistan province, Pakistan).

Methods: Data were gathered using a self-made questionnaire. All the data were entered and analyzed using Statistical Package for Social Science (SPSS Version 22.0) Descriptive analysis was applied on qualitative variables. Chi-square test was applied to compare qualitative variables.

Results: 150 parents participated in this study. 50 were males and 100 females. The subjects were divided into two groups; group 1: literate and group 2: illiterate. Most of the literate respondents detected eye abnormalities in their child more as compared to illiterate parents. Most of the literate respondents knew that wearing spectacles was effective in the treatment of poor eyesight as compared to illiterates. Most of the illiterate respondents got information about eye health from radio and community. Literate respondents got information about eye health mostly from newspapers, TV, and community. Most of the lesser-educated respondents wanted information on complications while the educated people wanted more information on signs and symptoms, treatment and prevention. Most of the illiterate respondents used self-medication and local herbs for the treatment of eye diseases but whereas literate respondents used self-medication, mostly go to ophthalmologists for treatment.

Conclusion: The literacy level of parents is more important for the perception of disease, but most parents are not well aware of eye disease due to lack of education and resources. Mostly parents used self-medication for the treatment of eye disease in this area.

Keywords: Awareness, Perception, Education level, Eye disease, Refractive error, Blindness.

Introduction:

Blindness is defined as visual acuity less than 3/60 to Perception of light or Visual field less than 10 degrees in the better eye with best possible correction. More than 1.5 million children are blind worldwide. Childhood blindness indicates a set of diseases and conditions developing at an early age, which if remain untreated result in severe visual impairment.¹

Amblyopia and strabismus are the conditions that require detection at a very early stage in children. The situation is the same in anisometropia as well. Parents should be well aware of these diseases. A lot of visual impairment is because parents are unaware of these conditions. Timely management can lessen such burden of visual impairment.²

Schoolchildren face many problems including visual abnormalities. Refractive errors like myopia, astigmatism, and hypermetropia cause severe visual impairment in children. Many children do not even feel any symptoms related to refractive errors. Studies show that there is a difference in village and city environments related to this pathology.³

There is a high percentage of such children who need new glasses. Younger children have modest impairment of vision but there is a greater possibility of having a large amount of refractive error in future.⁴

Parent's perception and awareness of children's eye diseases and one of the basics of health-seeking behavior is knowledge of disease and their symptoms, which appeared to miss in the parents of children studied. These aspects collectively impact negatively on the perception of eye diseases and encourage the use of dangerous traditional eye medications which can result in decreasing their difficulties.⁵

It was noted that the majority of mothers used substitute ways of medication. They went to the nearby medical stores for management of disease, because of the provision of a less expensive mode of treatment and workers of medical stores provide free advice. Parents are not responsive to health care facilities. Many factor influence, including the mother's religious beliefs and location of parents when children are sick.⁶

There is a lack of eye screening camps and ophthalmologists in rural areas and they get eye care services from general care hospitals. Eye care specialists do not visit underdeveloped areas due to inconvenience. Consequently, rural population has to get itself checked from general care hospitals.⁷

Economic and social status varies in different areas and acts as an underlying cause of childhood blindness. In moderate-income regions, causes of blindness are retinopathy of prematurity and cataract. The countries where poverty is present and parents' income is low, major causes of blindness are measles keratitis and deficiency of vitamin A.⁸

Studies show that education of mother is a factor which affects health consequences. Educated mothers utilized health care services properly. Hygienic conditions have an association with the literacy level of the mother. Educated mothers understand and provide proper hygiene to their children to prevent them from diseases.⁹

The public should completely avail eye health care services that are provided to them. It is possible by establishing platforms related to visual assessment in schools. In this regard, the media plays an important role. The health position of people is enhanced if we make their access easy to health centers. This results in improved health consequences. The relation between their knowledge of diseases and their behaviors about their access to health amenities is not clear. It is also ambiguous whether the level of health-related literacy is a contributory factor of parents' involvement in decision making. In a study, different families were provided with the same level of access to health facilitators. They had similar chances of decision making. The difference was only in the level of health education.¹⁰

Materials and Method:

Ethical clearance to conduct the study was obtained from the College of Ophthalmology and Allied Vision Sciences, King Edward Medical University Lahore. The cross-sectional descriptive study design was utilized for a study population of parents at a remote area Koh-i-Sulaiman. 150 parents participated in this study. 50 were males and 100 females. the sample was divided into two groups, group-1: educated, and group 2: uneducated. The literacy level of parents was associated with the perception level of parents having eye diseases in children. A consent containing information relating to the purpose, significance and intended procedures of the research study was completed and signed by each participant. Data were gathered by a self-designed questionnaire, questions regarding awareness level for various eye diseases in children. Data were analyzed using SPSS Version 22 and Microsoft Excel 2010. The hypothesis was that there is a relationship between the literacy level of parents and the perception level of parents in children having eye disease. The data were analyzed using the Chi-square test, with $p = 0.05$ to associate children having eye disease and the literacy level of parents.

Results:

Table 1: Feeling of eye abnormality in child & Parents' educational level

		Did you ever feel eye abnormalities in your child?		Total	P-value
		Yes	No		
Parents' educational level	illiterate	11	24	35	.009
	Primary	19	9	28	
	Middle	19	9	28	
	Matric	19	14	33	
	F.A	7	4	11	
	B.A	6	3	9	
	M.A	5	1	6	
Total		86	64	150	

Most of the literate respondents feel eye abnormalities in their child as compared to illiterate parents. The results are significant (chi-square value 17.146, df 6 with a p-value of 0.009).

Table 2: Hearing about of poor eyesight & Parent's educational level

		Have you ever heard of poor eyesight?		Total	P-value
		Yes	No		
Parents educational level	Illiterate	1	34	35	.000
	Primary	1	27	28	
	Middle	4	24	28	
	Matric	5	28	33	
	F.A	6	5	11	
	B.A	2	7	9	
	M.A	3	3	6	
Total		22	128	150	

Mostly educated respondents heard about poor eyesight. The results are significant (chi-square value 27.037, df 6 with p-value<0.001)

Table 3: Perception of wearing spectacles & Parent's educational level

		Do you think that wearing spectacles is effective in the treatment of poor eyesight?		Total	P-value
		Yes	No		
Parents educational level	Illiterate	14	21	35	.036
	Primary	19	9	28	
	Middle	19	9	28	
	Matric	25	8	33	
	F.A	9	2	11	
	B.A	7	2	9	
	M.A	4	2	6	
Total		97	53	150	

Most of the literate respondents know about wearing spectacles is effective in the treatment of poor eyesight as compared to illiterates. The results are significant (chi-square value 13.450, df 6 with p-value.036).

Table 4: Parent's educational level * from which source have you got information about eye health care?

		From which sources have you g information about eye health care?					Total	P-value
		Radio	Tele vision	Newspaper	Community	Any other		
Parents educational level	Illiterate	7	4	0	21	3	35	.000
	Primary	11	5	1	11	0	28	
	Middle	7	4	2	15	0	28	
	Matric	1	18	11	3	0	33	
	F.A	2	2	7	0	0	11	
	B.A	0	2	7	0	0	9	
	M.A	0	0	6	0	0	6	
Total		28	35	34	50	3	150	

Most of the illiterate respondents get information about eye health from radio and community while Literate's respondents get information about eye health mostly from newspapers, TV, and community. The results are significant (chi-square value 121.565, df 24 with p-value<0.001).

Table 5: Information regarding eye health

		What information would you like about eye health?				Total	P-value
		Information about treatment	Information about prevention	Information about complication	Signs and symptoms		
Parents Educational Level	Illiterate	5	6	17	7	35	.002
	Primary	8	4	13	3	28	
	Middle	3	8	10	7	28	
	Matric	14	11	4	4	33	
	F.A	8	0	0	3	11	
	B.A	1	2	4	2	9	
	M.A	2	0	2	2	6	
Total		41	31	50	28	150	

Most of the lesser educated wanted information on complications while the educated people wanted more information on signs and symptoms, treatment and prevention. (Chi-square value 40618, df 18 with p-value of 0.002).

Table 6: Treatment seeking & level of education

		If you feel signs and symptoms of poor eyesight, from where do you seek treatment?				Total	P-value
		Self-medication	Ophthalmologists in public hospitals	Optometrist in public hospital	look for local herbs		
Parents educational level	Illiterate	19	2	1	13	35	.000
	Primary	20	4	1	4	28	
	Middle	20	3	1	5	28	
	Matric	20	12	1	0	33	
	F.A	6	5	1	0	11	
	B.A	2	7	2	0	9	
	M.A	1	5	3	0	6	
Total		88	38	9	22	150	

Most of the illiterate respondents used self-medication and local herbs for the treatment of eye disease while Literate respondents also used self-medication and mostly go to ophthalmologists for treatment. The results are significant (chi-square value 58.996, df 18 with p-value<0.001).

Discussion:

It was reported that 50% of blindness in children is due to avoidable causes. Due to the economic and educational situation in Koh-i-Sulaiman, programs for the detection and management of childhood blindness at primary, secondary and tertiary levels are up to the mark.

In the current study, male and female parents were selected and divided into two groups, literate and illiterate parents, to check the perception level of parents having eye disease in their children.

In a previous study, most parents know about common eye disease: such as 85.7% blurry vision, 74.3% itching and redness conjunctivitis 48.5%, cataract 74.3%, short-sightedness 48.5% and sty 57.1%, strabismus 57.1%. But parents have the wrong perception of eye disease.¹

Another study showed that parents were aware of common eye problems like refractive error, squint, and cataract, except for amblyopia, in their children. The causative factors for ocular diseases were not well understood by parents.²



In most of the previous studies, the literacy level of parents was not mentioned. Signs and symptoms of diseases were not associated with literacy levels. But in the current study sign and symptoms of a disease is compared between educated and uneducated parents. Parents have the wrong perception, due to lack of education and awareness in underdeveloped areas.

The literacy level of parents is more important for the perception of eye disease. There should be comparisons between educated and uneducated parents to check the underlying causes of disease. About ten percent of 5- and 6-year-old schoolchildren have eye problems that require either glasses or treatment for strabismus or amblyopia.

In childhood, many parents do not perceive diseases in their children even though they have many diseases such as refractive error which, if remained untreated, may cause amblyopia or strabismus. In the underdeveloped area parents do not perceive their children's eye disease due to a lack of education in underdeveloped areas.

In a study, local herbs and self-medication for the treatment of eye disease was found in 94.3% of respondents. Antibiotic eye drop was used by 80% respondents without doctor's recommendation. Parents had knowledge about eye disease but have the wrong perception. In this study literacy level of parents was not associated with eye medication.¹ But in the current study literacy level of parents is associated with eye medication. Most of the illiterate respondents used self-medication and local herbs for the treatment of eye disease. Literate's respondent's used self-medication and mostly go to ophthalmologists for treatment.

In previous studies, the source from which parents get information about eye health care was not mentioned.⁵ But in the current study parents have some idea of the source of information. Most of the illiterate respondents get information about eye health from radio and community. Literate's respondents get information about eye health mostly from newspapers, TV, and community.

These studies were about the parent's awareness and perception of eye disease in underdeveloped areas. In the current study, male and female parents were selected and divided into educated and uneducated parents. But in the previous study in Nigeria¹ literacy level was not mentioned. Parents do not go for a checkup because they have socio-economic problems in underdeveloped areas. There should be an appropriate health training center to aware of eye disease and poor vision. There should be awareness campaigns to prevent blindness frequently in a remote area.

Conclusion:

The literacy level of parents is more important for the perception of disease, but most parents are not well aware of

eye disease due to lack of education and resources. Most parents use self-medication for the treatment of eye disease.

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