

A Study to Assess the Knowledge of Mothers of School Going Children on Prevention of Eye Problems in Selected Area at Tumkur with a View to Develop an Information Guide Sheet

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Abstract: *The human vision system at birth is poorly developed, but rapidly becomes the remarkable combination of nerve tissue, muscles and optical lenses that provide us with the sense of vision. The information processed by the eyes is sent directly to the brain and is interpreted as vision. The eyes learn to move and scan across the visual world, sensing time and space. Colors and shapes become valuable clues to help us understand our environment. Visual impairment is a worldwide problem that has a significant socioeconomic impact. Childhood blindness is a priority area because of the number of years of blindness that ensues. Children do not complain of defective vision, and may not even be aware of their problem. They adjust to the poor eyesight by sitting near the blackboard, holding the books closer to their eyes, squeezing the eyes and even avoiding work requiring visual concentration. This warrants early detection and treatment to prevent permanent disability. In the present study, data were collected from 60 mothers on knowledge regarding prevention of eye problems in selected area of Tumkur. Objectives of this study are to assess the knowledge of mothers regarding prevention of eye problems, to determine association between socio - demographic variables with knowledge of mothers regarding prevention of eye problems, to develop an information guide sheet for the use of mothers prevention of eye Problems. The study was descriptive in nature. Sample size was 60 mothers. Simple random technique was used to draw the sample. The data collection was done by interview method, using questionnaire (A structured interview schedule), which includes 30 questions of knowledge scoring pattern of one for each correct answer and zero for incorrect response, attitude scale and observational checklist was used. Findings regarding level of knowledge regarding eye problems and its prevention and they are having maximum knowledge in General knowledge about eye problem (60.2%) and minimum knowledge in Prevention of eye problem (51.3%). Overall they are having 56.1% of knowledge on eye problems. Findings on relation between demographical variables and level of knowledge of mothers, There was significant relationship between ($p < 0.05$) between the knowledge and age, education, income, religion, type of family of the mothers. This study showed that level of knowledge varies with age, type of family, religion, educational status, income. The findings of this study should be used as a base to create more awareness to improve the knowledge regarding prevention of eye problems. Hence the health status of children's and general public can be motivated to use curative services available and preserve their safe health.*

Keywords: Eye problems, knowledge, Assess

1. Introduction

Eye, eye is the wonderful sensory organs, through which we are seeing this amazing world, protect ourselves from accidents and express our feelings.

The human vision system at birth is poorly developed, but rapidly becomes the remarkable combination of nerve tissue, muscles and optical lenses that provide us with the sense of vision. The information processed by the eyes is sent directly to the brain and is interpreted as vision. That information is also used to provide us with the awareness of space and location. The eyes learn to move and scan across the visual world, sensing time and space. Colors and shapes become valuable clues to help us understand our environment.

It was previously thought that infants didn't see all that well, not reaching the 20/20 standard until later childhood. In the last few years, our knowledge of the infant's and toddler's visual world has expanded. We now know that even at 1 month, the infant sees quite clearly - - - at least to about 20 inches (50 cm). They just don't need or care to process information from further away than their mother's and father's faces, or mother's breasts. Pretty soon thereafter, probably by 3 months, the infant's vision system is

developed to the point of providing pretty good quality vision, specially tuned for her/his needs

Visual impairment is a worldwide problem that has a significant socioeconomic impact. Childhood blindness is a priority area because of the number of years of blindness that ensues. Data on the prevalence and causes of blindness and severe visual impairment in children are needed for planning and evaluating preventive and curative services for children, including planning special education and low vision services. The available data suggest that there may be a tenfold difference in prevalence between the wealthiest countries of the world and the poorest, ranging from as low as 0.1/1000 children aged 0 - 15 years in the wealthiest countries to 1.1/1000 children in the poorest. It is estimated that the cumulative number of blind - person - years worldwide due to childhood blindness ranks second only after the cumulative number of blind - person - years due to cataract blindness. Considering the fact that 30% of India's blind lose their eyesight before the age of 20 years and many of them are under five when they become blind, the importance of early detection and treatment of ocular disease and visual impairment among young children is obvious.

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work requiring visual concentration. This warrants early detection and treatment to prevent permanent disability. Effective methods of vision screening in school children are useful in detecting correctable causes of decreased vision, especially refractive errors and in minimizing long - term visual disability.

2. Need for the Study

Without good vision, a child's ability to learn about the world becomes more difficult. Vision problems affect one in 20 preschoolers and one in four school - age children. Since many vision problems begin at an early age, it is very important that children receive proper eye care. Untreated eye problems can worsen and lead to other serious problems as well as affect learning ability, personality and adjustment in school.

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Seventy - five per cent of all school age children are school - going children. The dropouts mostly belong to families with low socioeconomic status, minimal family education and economic necessity for wage earning to support the family. Children in the school - going age group (6 - 16 years) represent 25% of the population in the developing countries. They offer significantly representative material for these studies as they fall best in the preventable blindness age group, are a controlled population i. e., they belong to a certain age group and are easily accessible and schools are the best forum for imparting health education to the children. Schools are also one of the best centers for effectively implementing the comprehensive eye healthcare program. Hence, this study was conducted with the objective of estimating the prevalence of ocular morbidity among school children.⁶

Poor vision in childhood affects performance in school or at work and has a negative influence on the future life of a child. Moreover, planning of the youth's career is very much dependent on visual acuity, especially in jobs for the navy, military, railways and aviation. Refractive errors are the most common reasons of the outpatient visit to an ophthalmic surgeon or an ophthalmic assistant. Vitamin A deficiency up to an extent of 5.4 - 9% in 4 to 16 years has been reported from Rajasthan and Kolkata respectively as compared to 1.8% in the present study. This can be explained by lower socioeconomic status associated with unhealthy dietary pattern of children in those studies.⁷

Higher (3 - 17.5%) prevalence of conjunctivitis has been reported in other parts of India. However, Robinson reported 1.5% prevalence of conjunctivitis among children of 1 - 17 years in North America, which is similar to this study.

Variation in the prevalence of conjunctivitis can be explained by difference in socioeconomic status, personal hygiene of children and seasonal variations of occurrence of conjunctivitis. Low prevalence of congenital disorders was found to be the same as it has been observed in other studies from India.⁸ So the investigator felt the strong need to assess the knowledge of knowledge of Mothers of school going children on prevention of eye problems.

3. Review of Literature

A study conducted on Present status of eye care in India. India, the second most populous country in the world, is home to 23.5% of the world's blind population. In 1976 India became the first country in the world to start a national program for control of blindness. All surveys in the country have shown that cataract is the most common cause of blindness and all prevention of blindness programs have been "cataract - oriented." However, it has recently been recognized that the visual outcome of the cataract surgeries as well as the training of ophthalmologists has been less than ideal. There is now increasing emphasis on high - quality surgery and up - gradation of skills among ophthalmologists. Other important causes of blindness are refractive errors, childhood blindness, corneal blindness, and glaucoma. The definitions, magnitude, and present status of each of these causes of blindness, as well as efforts at control, are discussed.

A study conducted on School eye health appraisal. School children form an important large target group which must be screened adequately for early detection of eye diseases and prevention of blindness. A total approach in a school eye health programme must include teacher orientation and health education of children in addition to screening for eye diseases. The ocular morbidity pattern in 5135 school children of Jodhpur is discussed in this paper and it is hoped that it will be an indicator to all eye care agencies to help plan their priorities in the delivery of school based eye care.

A study conducted on, To assess the prevalence and pattern of eye diseases in children aged 5 - 15 years. A community - based survey was carried out at the Bazzertaline Area, South Karachi, Pakistan on 5110 children 5 - 15 years of age. The socioeconomic status of the area was low, with many living below the poverty line. The survey used the WHO definitions of visual impairment as criteria for classification. Standard Snell's literate and illiterate charts were used for assessing the visual acuity. An anterior segment examination with a torch light and loupe was carried out and the posterior segment examined with a direct ophthalmoscope, initially without pupil dilation. Suspected cases of amblyopia, albinism, traumatic cataract and squint, etc. were examined with pupil dilatation. Provision of spectacles would address the most commonly found problem of uncorrected refractive error. Lack of trained personnel and facilities for low vision services in addition to lack of advocacy and awareness in the community contribute to the pattern of eye disease in the area.

A study conducted on Common ocular problems in children: conjunctivitis and tear duct obstructions. Conjunctivitis, both in the newborn period and later, and nasolacrimal duct

obstructions are common ocular problems facing all pediatricians. Conjunctivitis in childhood is separated into ophthalmia neonatorum and conjunctivitis at a later time. Gonococcus and chlamydia are the organisms causing the most concern in the neonatal period. Later, the diversity of causes becomes greater, but the consequences are smaller except for herpes simplex keratoconjunctivitis. Nasolacrimal duct obstructions are common in the first few months of life with most patients clearing spontaneously. Management is aimed at controlling symptoms until spontaneous resolution occurs or until the lacrimal system is probed.

A study conducted on A comparative clinical survey of the prevalence of refractive errors and eye diseases in urban and rural school children. In the urban group the prevalence of uncorrected presenting and best - corrected visual impairment (\leq or $=$ 20/40 in the better eye) was 9.8%, which dropped to 7.1% with presenting vision and was further reduced to 1.1% with best - corrected visual acuity. Uncorrected visual acuity in the rural group was 6.6%, which dropped to 3.3% with presenting vision and was further reduced to 2.5% with best - corrected visual acuity. The prevalence of refractive error was greater (25.2%) in the urban than the rural group (8%). Myopia measured with autorefractometry was observed in 51.4% of urban children and 16.7% in rural children. Increased literacy rate, duration of study hours, and older age of the child were found to have contributed more to the prevalence of myopia in the urban group. Hyperopia with autorefractometry was found to be 3.3% in the urban and 3.1% in the rural group. Hyperopia was associated with younger age in the study group. Trachoma was the leading cause of ocular morbidity in the rural group (3.5%) compared with the urban group (0.16%). Night blindness was reported in 3.2% of children in the rural group and 0.33% in the urban group. Vitamin A deficiency, low socio - economic status, and poor personal and environmental hygienic practice were found to have a positive correlation with ocular morbidity among rural group children.

A study conducted on Looking forward to 20/20: a focus on the epidemiology of eye diseases. The encouraging scenario of international efforts to eliminate preventable and avoidable blindness is the legacy of public health ophthalmology in the 20th century. With active programs currently in place or beginning for the major cause of blindness in childhood and two of the leading infectious causes of blindness, it is natural that research in eye disease will shift even more heavily toward the leading causes of blindness in the older ages.

A study conducted on Prevention of blindness and priorities for the future. The impact of visual loss has profound implications for the person affected and society as a whole. The majority of blind people live in developing countries, and generally, their blindness could have been avoided or cured. Given the current predictions that the number of blind people worldwide will roughly double by the year 2020, it is clear that there is no room for complacency. The definition of blindness needs to be rethought, to ensure that people with "economic" blindness are not forgotten. Efforts should be made to recognize and treat those affected at an early stage, for the benefit of the individual and society.¹⁵

A study conducted on Possibilities for prevention and treatment of blindness and impaired vision in children caused by congenital eye diseases. Blindness, disability, and impaired vision present important medicosocial problems. According to the WHO, there are 1.5 million blind children in the world. The prevalence of child blindness in Russia is 1.6, and that of impaired vision is 3.5 per 10000 children. It is considered that child blindness can be prevented in 40 to 50% of children. According to data collected during ophthalmological examinations in specialized school, blindness in 88 to 92% of cases is caused by. Presently, significant achievements have been made in treatment of congenital eye diseases. Realization of the 1999 WHO program on liquidation of eliminable blindness include three key directions: treatment and prevention of blindness; consolidation of the infrastructure and technology of ophthalmological aid; training of specialists.¹⁶

A study conducted on, Prevention of myopia in children Eye diseases rank third in the structure of morbidity among children aged 0 to 17 years. Acquired myopathy is the leading abnormality in the structure of morbidity, with diminished vision being in 28% of preschool children and in every two school graduates. Myopia is attended by the signs of systemic connective tissue dysplasia and impaired circulation due to autonomic dysfunction. Early diagnosis and correction of autonomic dysfunction is the basic line of the prevention and treatment of school myopia. Treatment of children can be organized in the medical room of a school. Along with general health - improving measures, physiotherapeutic procedures, such as lens exercises, curative gymnastics, massage, and gentle manual therapy procedures should be used in the multimodality treatment of children with myopia.¹⁷

A study conducted on, Vitamin A supplementation for cystic fibrosis. People with cystic fibrosis and pancreatic insufficiency are at risk of fat soluble vitamin deficiency as these vitamins (A, D, E and K) are co - absorbed with fat. Thus, some cystic fibrosis centres routinely administer these vitamins as supplements but the centres vary in their approach of addressing the possible development of deficiencies in these vitamins. Vitamin A deficiency causes predominantly eye and skin problems while supplementation of vitamin A to excessive levels may cause harm to the respiratory and skeletal systems in children.¹⁸

3.1 Problem Statement

“A study to assess the knowledge of mothers of school going children on prevention of eye problems in selected area at Tumkur”. With a view to develop an information guide sheet.

3.2 Objective of the Study

- To assess the knowledge of mothers regarding prevention of eye problems.
- To determine association between socio - demographic variables with knowledge of mothers regarding prevention of eye problems.
- To develop an information guide sheet for the use of mothers prevention of eye Problems

3.3 Operational Definitions

- **Assess:** It is the organized systematic and continuous process of collecting data from the mother regarding prevention of eye problems.
- **Knowledge:** It refers to the correct responses of the mothers to the question included in the structured interview schedule regarding prevention of eye problems.
- **Prevention:** It is the act to keep from happening of eye problems.
- **Mothers:** The women who are having school going children.
- **Eye problems:** It refers to the trouble occurs to the organ of sight.
- **Children:** Age group belongs to 6 - 12 years.

3.4 Hypothesis

H₁, There will be significant relation between knowledge regarding prevention of eye problems among mothers.

H₂, There will be significant association between the knowledge of mothers in selected demographical variables, such as age, religion, occupation, income, and education.

3.5 Assumption

- Mothers will have some Knowledge regarding prevention of eye problems.
- Mothers Knowledge vary with demographical variables
- The information guide sheet on prevention of eye problems will improve the knowledge of mothers.

4. Material and Methods

4.1 SOURCES OF DATA

4.1.1 Research approach: A descriptive study.

4.1.3 Research design: A non - experimental, descriptive study.

4.1.3 Setting of study: The study will be conducted on mothers.

4.1.4 Sample size: 60

4.1.5 Sampling Technique: purposive sampling technique

4.1.6 Selected variables:

Independent: Demographical variables for example Age, Education, Income, Religion, Occupation.

Dependent: Structured interview schedule

4.1.7 Sample Criteria

Inclusion Criteria

- Who are available during data collection.
- Mothers of children age between 6 - 12 years.
- Mothers who know Kannada or English.

Exclusion Criteria

- Infertility women.
- Mothers who are having children more than 15 years.

4.2 Method of Data Collection

- **Data collection technique:** Structured interview schedule
- **Tool for data collection:** Structure Questionnaire.

4.3 Methods of Data Analysis and Interpretation

The researcher will use appropriate statistical technique for data analysis and present in the form of tables, graphs and diagrams.

References

- [1] Foster A. Worldwide blindness, increasing but avoidable. *Semin Ophthalmol.*1993; 8: 166–70.
- [2] Gilbert CE, Anderton L, Dandona L, Foster A. Prevalence of visual impairment in children: A review of available data. *Ophthalmic Epidemiol.*1999; 6: 73–82.
- [3] Danish Assistance to the National Programme for Control of Blindness. New Delhi, India: Vision screening in school children. Training module.1.
- [4] Bhagyalakshmi J. Presenting Educational Science: What next?" *Yojana.*2001; 45: 48–9.
- [5] Shimla fact file. Available from: http://hpshimla.nic.in/sml_fact.htm. last accessed on 2007 May
- [6] Sommer A. Field guide to the detection and control of xerophthalmia.2nd ed. Geneva: WHO; 1982.
- [7] Desai S, Desai R, Desai NC, Lohiya S, Bhargava G, Kumar K. School eye health appraisal. *Indian J Ophthalmol.*1989; 37: 173–5.
- [8] Thomas R, Paul P, Rao GN, Muliylil JP, Mathai A. Present status of eye care in India. L. V. Prasad Eye Institute, Hyderabad, Andhra Pradesh, India.
- [9] Desai S, Desai R, Desai NC, Lohiya S, Bhargava G, Kumar K. School eye health appraisal.
- [10] Shaikh SP, Aziz TM. Pattern of eye diseases in children of 5 - 15 years at Bazzertaline Area (South Karachi) Pakistan. Department of Ophthalmology, Jinnah Postgraduate Medical Centre, Karachi, Pakistan.
- [11] King RA. Common ocular problems in children: conjunctivitis and tear duct obstructions. Department of Ophthalmology, Childrens Hospital, Denver, Colo.