



“Effect Of Structured Teaching Programme On Knowledge And Practice Regarding Eye Health Among School Children In Selected Schools Of Bharanikkavu Panchayat”

Dr. Gaurav Tyagi¹, Ms. Lovepreet Kaur², Ms. Asha G Nair³
¹Professor ²Nursing Tutor ³Ph.D. Scholar

ABSTRACT

“The eyes are the windows to the soul” – William Shakespeare Eye problems among school children are a significant public health concern affecting their academic performance and overall well-being. This study aimed to evaluate the effectiveness of a structured teaching programme on knowledge and practice regarding eye health among school children in selected schools of Bharanikkavu Panchayat. The objectives were to assess pre-test knowledge and practice levels, evaluate the effectiveness of the teaching programme, and determine the association between pre- test scores and selected demographic variables. A pre-experimental one-group pre-test and post- test research design was adopted. Using convenient sampling, 100 school children were selected. Data were collected through a structured questionnaire. After the pre-test, a structured teaching session using appropriate audiovisual aids was conducted, followed by a post-test after seven days. Pre-test results showed that 4% had good knowledge, 56% had average knowledge, and 40% had below-average knowledge. Regarding practice, 5% demonstrated healthy practice, 30% satisfactory practice, and 65% poor practice. Post-test findings revealed significant improvement: 72% had good knowledge, 22% average knowledge, and 6% below-average knowledge. Healthy practice increased to 83%, satisfactory practice to 10%, and poor practice reduced to 7%. The mean post-test knowledge (20.73) and practice (6.95) scores were significantly higher than pre- test scores (12.95 and 5.44 respectively). The calculated t-values for knowledge (31.002) and practice (18.53) were greater than the table value (1.96), indicating statistical significance. Chi- square analysis showed an association between pre-test scores and selected demographic variables. The study concluded that the structured teaching programme was effective in improving knowledge and practice regarding eye health among school children.

Keywords: Effectiveness, Structured Teaching Programme, Eye Health, School Children, Knowledge, Practice

INTRODUCTION

Eye health is vital for school-aged children, as vision problems can negatively affect academic performance, development, social interaction, and overall quality of life. Globally, many childhood vision impairments—such as refractive errors and vitamin A deficiency—are preventable or treatable.

Studies show that 1 in 4 children has a vision-related problem, and untreated conditions can impact learning, attention, and athletic performance. It is estimated that nearly 60% of learning difficulties are associated with vision problems.

With increased digital device usage, especially after the COVID-19 pandemic, Digital Eye Strain (DES) has become a growing concern among children. Symptoms include dry eyes, itching, watering, blurred vision, and headaches. School children are particularly at risk, and diagnosis may be delayed as they often do not report symptoms early.

The rising prevalence of refractive errors and other eye disorders highlights the need for early screening and awareness programs. A nurse-led school intervention can provide education, regular screening, and promote healthy eye practices. Such preventive approaches help reduce childhood visual impairment and support better academic and developmental outcomes.

This study aims to improve children's knowledge and practices regarding eye health, encouraging early detection and timely treatment to prevent long-term vision problems.

NEED FOR THE STUDY

The study was conducted to evaluate the effectiveness of a structured teaching programme on knowledge and practices regarding eye health among 100 school children selected through convenient sampling in Bharanikkavu Panchayat.

Before the intervention, most students had inadequate knowledge and poor practices. In the pretest, 40% had below-average knowledge, 56% had average knowledge, and only 4% had good knowledge. Regarding practices, 65% showed poor practice, 30% satisfactory practice, and only 5% healthy practice.

After implementing the structured teaching programme, there was a significant improvement. The post-test mean knowledge score (20.73) was higher than the pre-test score (12.95), and the post-test practice score (49.97) was higher than the pre-test score (28.65). The calculated t-values were greater than the table value, indicating that the programme was statistically effective.

These findings are supported by previous studies conducted by Rajiv Ranjan Karan, Satyanarayan Singh, and Sanjay Kumar Singh, which showed improvement in students' eyehealth knowledge after educational intervention. Similar effectiveness was reported by Visshakantamurthy D G, Chandra Shekhar M A, Muruli Mohan A, and also by Supriya Biswar and Ashwini, who found that structured or video-assisted teaching programmes significantly increased knowledge regarding eye problems. The study also examined the association between knowledge, practices, and demographic variables. Significant associations were found with factors such as age, family structure, parents' employment and education, family income, existing eye problems, sleeping hours, and time spent on mobile phones. Overall, the structured teaching programme resulted in a meaningful improvement in both knowledge and practices related to eye health.

OBJECTIVES OF THE STUDY

- To assess the pre-test level of knowledge and practice regarding eye health among school children in a selected school

- To evaluate the effect of structured teaching programme on knowledge and practice regarding eye health among school children in a selected school children
- To find out association between pre-test level of knowledge and practise of school children regarding eye health with selected demographic variable

REVIEW OF LITERATURE

A cross-sectional descriptive study on Prevalence of Ocular Morbidity among School going Children (6–15 years) was conducted at Padmashree Dr. Vithalrao Vikhe Patil Medical College & Hospital, Ahmednagar, Maharashtra. The study included 1,095 school children aged 6 to 15 years from both urban and rural schools. The aim was to determine the prevalence and types of ocular morbidity through visual screening and clinical examination. The results showed that 113 children (9.66%) had ocular morbidity. Among these, refractive errors were most common (7.57%), followed by strabismus (1.55%), color blindness (0.18%), vitamin A deficiency (0.36%), and congenital anomalies (0.2%). The study concluded that a considerable percentage of children suffer from preventable or treatable eye conditions and emphasized the importance of implementing regular school eye screening programs to detect and manage ocular problems at an early stage.

A cross-sectional study on “The prevalence of myopia among school-going children (6–14 years) in Chidambaram, Tamil Nadu” was conducted to assess the burden of myopia among children aged 6 to 14 years. The study involved 575 students from two government and two private schools were selected conveniently, with demographic variables including age, gender, and type of school. Vision screening was conducted using a structured checklist. In the pretest screening, a significant number of students failed the initial visual acuity assessment, indicating uncorrected refractive errors. The result shows that the prevalence of myopia was found to be 12.9%. There is a significant association between the frequency of reading hours, time spent on outdoor activities and mobile usage and the presence of myopia ($p < 0.05$). The study concluded that the risk factors like hours of reading books, time spent on outdoor activities and mobile usage are the contributing factors for the development of refractive error like myopia. They are easily detectable through the program on eye screening of school children and early corrective measures to prevent the progression of visual problems in children.

MATERIALS AND METHODS

Research Design

A quantitative research design was adopted to evaluate the effectiveness of the selected nursing intervention. The design facilitated structured data collection, analysis, and comparison of pre- and post-intervention results.

Setting of the Study

The study was conducted in a selected hospital/community area, chosen for its accessibility and suitability for the target population. Institutional permission was obtained prior to data collection.

Population and Sample

The target population consisted of individuals meeting specific inclusion criteria related to the study focus.

A purposive sampling technique was employed to select the participants (usually 30–60 samples,

depending on study scope).

Tool for Data Collection

A structured questionnaire or checklist was developed after an extensive review of literature and validation by subject experts.

The tool included sections assessing knowledge, attitude, and/or practice depending on the study variable.

Data Collection Procedure

Data collection was done in two phases:

Pre-test – to assess baseline knowledge or condition.

Intervention – educational session, demonstration, or nursing activity administered to participants. Post-test – to evaluate the effectiveness of the intervention.

The total duration of data collection was determined based on participant availability.

Data Analysis

Data were analyzed using both descriptive (frequency, percentage, mean, standard deviation) and inferential statistics (paired t-test, chi-square test) to determine the significance at $p < 0.05$.

Ethical Considerations

Ethical clearance was obtained from the Institutional Ethical Committee. Informed consent was taken from all participants, ensuring confidentiality and voluntary participation.

RESULTS

Demographic characteristics

The study included 100 school children. Majority were aged 14 years (57%), followed by 15 years (21%) and 13 years (12%). Females constituted 55% and males 45%. Most belonged to nuclear families (40%) and joint families (35%). Nearly 40% of parents were graduates and most were employed. About 7–8% of parents had refractive errors, and 83% students were from Bharanikkavu Panchayat.

Knowledge on Eye Health

Pre-test findings showed that 4% of children had excellent knowledge, 52% had good knowledge, and 44% had poor knowledge. After the structured teaching programme, 72% attained excellent knowledge, 22% had good knowledge, and only 6% remained with poor knowledge, indicating marked improvement.

Practice Regarding Eye Health

In the pre-test, 5% of children demonstrated healthy practices, 30% satisfactory practices, and 65% poor practices. Post-test results showed significant improvement with 83% having healthy practices, 10% satisfactory practices, and only 7% poor practices.

Effect of Structured Teaching Programme

The mean pre-test knowledge score was 12.95 ± 6.05 , which increased to 20.73 in the post-test (mean difference = 7.78). The calculated t-value (31.002) was greater than the table value (1.96), indicating statistically significant improvement.

Similarly, the mean practice score increased from 28.65 to 49.97 with a calculated t-value of 18.53 (>1.96). These findings confirm that the structured teaching programme was effective in improving knowledge and practices regarding eye health among school children.

DISCUSSION

The study was conducted to evaluate the effectiveness of a structured teaching programme on knowledge and practices regarding eye health among 100 school children selected through convenient sampling in Bharanikkavu Panchayat.

Before the intervention, most students had inadequate knowledge and poor practices. In the pretest, 40% had below-average knowledge, 56% had average knowledge, and only 4% had good knowledge. Regarding practices, 65% showed poor practice, 30% satisfactory practice, and only 5% healthy practice.

After implementing the structured teaching programme, there was a significant improvement. The post-test mean knowledge score (20.73) was higher than the pre-test score (12.95), and the post-test practice score (49.97) was higher than the pre-test score (28.65). The calculated t-values were greater than the table value, indicating that the programme was statistically effective.

These findings are supported by previous studies conducted by Rajiv Ranjan Karan, Satyanarayan Singh, and Sanjay Kumar Singh, which showed improvement in students' eyehealth knowledge after educational intervention. Similar effectiveness was reported by Visshakantamurthy D G, Chandra Shekhar M A, Muruli Mohan A, and also by Supriya Biswar and Ashwini, who found that structured or video-assisted teaching programmes significantly increased knowledge regarding eye problems.

The study also examined the association between knowledge, practices, and demographic variables. Significant associations were found with factors such as age, family structure, parents' employment and education, family income, existing eye problems, sleeping hours, and time spent on mobile phones. Overall, the structured teaching programme resulted in a meaningful improvement in both knowledge and practices related to eye health.

In conclusion, the structured teaching programme was effective in enhancing eye-health awareness and healthy practices among school children.

CONCLUSION

The findings of the study indicate that the educational intervention was effective in improving the knowledge and practices regarding eye health among school children. In the pre-test, a significant proportion of students had poor to moderate knowledge and practice levels. However, the post-test results showed a marked improvement, with the mean knowledge score increasing from 12.95 to 20.73 and the mean practice score rising from 28.65 to 49.97. This clearly demonstrates the positive impact of the teaching programme.

The study highlights the crucial role of nurses in promoting eye health through health education, school health programmes, and preventive services. Nursing administrators and educators should integrate eye health promotion into school curricula and organize awareness programmes in collaboration with health and education departments.

Although the study was limited by sample size, convenient sampling, and restriction to selected schools in Bharanikkavu Panchayat, the results emphasize the need for regular training, periodic assessment, and focused awareness programmes to improve eye health knowledge and practices among school children.

Overall, the study concludes that structured health education significantly enhances students' knowledge and practices related to eye health promotion.

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