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ASSESSING THE EFFECTIVENESS OF SELF-INSTRUCTION MODULES ON NUTRITIONAL KNOWLEDGE AMONG SCHOOL GOING INDIAN CHILDRENS

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ABSTRACT

This research study aims to evaluate the Effectiveness of self-instruction modules on nutritional knowledge among school-going children in the Solan district in India. The study uses a non-experimental descriptive research design to assess the level of knowledge among 60 school-going children aged 12-17 years from selected government schools. The study examines demographic variables such as age, residence, family background, education status of father and mother, occupation of father and mother, previous knowledge on nutritional needs, and source of knowledge. The study finds that 83.33% of children had average knowledge, 6.66% had good knowledge, and 10% had below-average knowledge. The study also reveals significant associations of religion, the father and mother's education, and the father's occupation with the level of knowledge among school-going children.

INTRODUCTION

The importance of proper nutrition for children's growth and development cannot be overstated. School-going children are at a crucial stage in their physical and mental development and must receive adequate nutrition to ensure their well-being. However, many children lack the necessary knowledge and awareness of nutritional needs, leading to inadequate dietary habits and potentially adverse health outcomes.

To address this issue, the study evaluates the Effectiveness of a self-instruction module designed to improve the nutritional knowledge of school-going children in selected schools of Distt. Solan. The study assesses the awareness regarding nutritional needs among children and aims to measure the impact of the self-instruction module on their knowledge of essential nutrients.

The study employs a non-experimental descriptive research design, and the target population consists of school-going children aged between 12 and 17 years from selected schools in the Solan district. The sample size is 60 children, selected by a purposive method.

Age, residence, religion, type of family, educational status of parents, occupation of parents, and previous knowledge of nutritional needs are collected. The data is analyzed to determine the children's knowledge level and assess the association between demographic variables and nutritional knowledge. The study's results may guide policymakers, educators, and healthcare professionals in developing effective strategies to improve children's nutritional knowledge and ultimately promote better health outcomes.

LITERATURE REVIEW

This literature review covers different aspects related to the nutritional needs of school-going children. The study conducted by Shin et al. (2012), aimed to explore the knowledge, attitude, and behavior of children in South Korea. A total of 439 participants participated in the study. Laxmaiah (2011) conducted another study assessing the prevalence of vitamin A deficiency (VAD) in rural preschoolers. The study included 8777 preschool children, and the results showed that 88% of the children had blood vitamin A deficiency. The study also found that children of lower socioeconomic communities were at high risk of VAD.

Another study conducted by Vinod Bagilker, Bhardesh B, and Savdath highlighted that malnutrition has become a critical global health issue, with severe malnutrition causing approximately one million deaths annually and 20 million children under five suffering from severe malnutrition. The study also showed that 2/3 of children under five in India are malnourished. Shukla et al., (2016). Conducted a retrospective study on the prevalence of vitamin D deficiency (VDD) in an ostensibly healthy Indian population. The study found that 93% of the subject population had VDD, with the maximum number of subjects aged 41-60 years. A study conducted by Sachdeva et al. (2009) assessed the prevalence of anemia and serum ferritin status among 1120 healthy adolescent girls aged 12-18 years in a rural school in Chandigarh, India. The results showed that 23.9% of the adolescent girls had a high prevalence of iron deficiency anemia. A descriptive study conducted by Mrs. Sahbanathul, Missiriya et al. highlighted the prevalence of Protein Energy Malnutrition (PEM) among children living in slums in North Chennai, India. The study found that PEM was a significant public health concern, with 146 million children being underweight in developing countries, including India. In conclusion, this literature review highlights the prevalence of various nutritional deficiencies among school-going children in different parts of the world, emphasizing the need for appropriate interventions to improve the nutritional status of children.

METHODOLOGY

The research approach adopted for this study was quantitative. The research design selected was a non-experimental descriptive research design. The target population for this study was all schoolgoing children aged 12-17 years of Government Senior Secondary School Nalagarh. Using a purposive method and a random sampling technique, 60 school-going children were selected for this study.

The eligibility criteria for this study include school-going children who are available at the time of data collection and willing to participate. Structured knowledge questionnaires were used to assess children's knowledge of nutritional needs. After reviewing the literature, consulting nursing experts and researchers on experience, the investigator developed the tool.

The tool consists of two sections: Section A deals with the demographic data of school-going children, and Section B deals with a structured knowledge questionnaire. Scores for each correct response were one, scores for incorrect responses were zero. There are three levels of knowledge measured by the criteria: good, average, and below average. The total score is 30, the maximum score is 30, and the minimum score is 0. Using an inter-rater method, the validity of the tool was validated by five experts in nursing.

We conducted a pilot study at Government Senior Secondary

School Nalagarh to assess the feasibility, clarity of language, and reliability of the tool. It was found that the study was feasible, the tool was relevant, and the time post-study was within the limit. It was analyzed by using descriptive and inferential statistics.

The data collection procedure is done in July 2018. Prior permission was obtained from the Principal of Govt. Sen. Sec. School Nalagarh. Before administering the tool, the researcher introduced themselves to the respondent and explained the purpose of data collection. To obtain maximum cooperation from the respondent, they were assured that the confidentiality of data would be maintained, and informed consent was taken. After obtaining written informed consent from each respondent, they were asked to fill out the demographic performance and structured knowledge questionnaire on knowledge regarding nutritional needs. The average time each respondent took to fill out the tool was 25-30 minutes. After the completion, the tools were collected back, and every child was thanked for cooperation with the investigator. The required data were analyzed using appropriate statistical techniques.

ANALYSIS OF THE DATA

Table 1: analysis of findings

Category	Percentage
Age Group	
13-14 years	30%
14-15 years	16.66%
15-16 years	25%
16-17 years	28.3%
Location	
Urban	70%
Rural	30%
Religion	
Hindu	98.33%
Muslim	1.66%
Family Type	
Joint family	61.66%
Nuclear family	38.33%
Father's Education	
Illiterate	8.33%
Primary Education	58.33%
Senior Secondary	25%
Graduate	8.33%
Mother's Education	
Illiterate	25%
Secondary or Below	46.66%
Senior Secondary	15%
Graduate	15%
Father's Occupation	
Private Job	45%
Self-employed	36.66%
Government Job	18.33%
Unemployed	0%
Mother's Occupation	
Homemaker	78.33%
Private Job	13.33%
Government Job	13.33%
Self-employed	3.33%
Family Income	
Below 5000	26.66%
5000-10000	30%
10000-15000	26.66%
More than 15000	16.66%
Nutrition Knowledge	
Yes, from teachers	65%
Yes, from family	1.66%
Yes, from friends	8.33%
Yes, from the mass media	1.66%
No	13.33%

The data presented in the table:1 provides information about the demographics and socioeconomic status of a group of children. Many of the children are Hindu, from urban areas, and belong to joint families. Their parents have varying levels of education and are employed in private or government jobs or are self-employed. The student's family income ranges from below 5000 to more than 15000. More than half of the students have previous knowledge of nutritional needs, and the primary source of this knowledge is their teachers.

DISCUSSION OF FINDINGS

The study highlights the need to improve nutritional knowledge among school-going children in India. Many of the students were found to have average knowledge, and only a small percentage of students had good knowledge. There is a need to focus on improving the nutritional education provided to school students.

The study also identifies demographic factors associated with students' level of knowledge. The findings suggest that children from rural areas, Muslim children, children from nuclear families, and those with fathers who are educated beyond the primary level have lower levels of nutritional knowledge. This information can be used to develop targeted interventions to improve the nutritional knowledge of these specific groups of students.

The study highlights the role of teachers in providing nutritional education to students. A majority of students obtain their knowledge from teachers, and hence, there is a need to provide proper training to teachers on the subject of nutrition. The study also identifies a need to increase the use of mass media to provide nutritional education to children.

Based on the study findings, policies can be developed to improve the nutritional health of school-going children. Such policies may include incorporating a structured nutrition curriculum into school curricula, training teachers to improve their knowledge and skills related to nutrition education and using mass media to provide additional nutritional education to students. The policies may also focus on developing targeted interventions to improve the nutritional knowledge of specific groups of students, such as those from rural areas, Muslim children, and those with lower levels of parental education. By implementing these policies, the Indian education system can contribute to improving the nutritional health of school-going children, which can have a positive impact on their overall health and academic performance.

IMPLICATION OF THE STUDY

Policies related to school-going children's nutritional health can be informed by the findings of this study. For example, policymakers can use information on demographic variables to identify specific groups of children who may require more targeted health education interventions. Additionally, the finding that most students received their nutritional knowledge from teachers suggests that policymakers should consider the role of teachers in health education programs.

In academics, the study highlights the importance of health education within nursing education programs. The findings can be used to inform the development of nursing curricula, ensuring that nurses are equipped with the necessary skills and knowledge to provide health education to school-going children.

Practically, the study emphasizes the role of nurse

administrators in providing health education to school-going children. The findings suggest that nurse administrators are responsible for providing health education related to nutritional needs, which can be achieved through educating students and staff nurses. Children's health and well-being are promoted by nurse administrators.

In terms of nursing research, the study highlights the need for more research in health education for school-going children, using knowledge assessment techniques. The findings suggest a need to review the existing evidence and place more emphasis on research in this area. This can help inform the development of evidence-based health education programs for school-going children, to increase their knowledge and promote their overall health and well-being.

CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH DIRECTIONS

The study reveals that school-going children in India have average knowledge regarding their nutritional needs. Religious beliefs, educational attainment, occupation, and source of knowledge all influence a child's knowledge level. Indian education policies pertaining to nutritional health of school-going children can be based on these findings. Developing and implementing nutrition education programs can increase children's nutritional knowledge. A nurse administrator can also educate school-going children about nutritional needs as part of their health education. In addition, they can train students and nursing staff to be healthy agents in society.

Limitations of the study includes limited geographic area that may not represent all Indian school-going children. A cross-sectional design limits causality establishment, and a self-report questionnaire may lead to response bias in the study.

In future a multi-centric study covering a larger population of Indian schoolchildren could address the limitations of this study. A longitudinal design can be adopted to establish causality. In addition, a mixed-methods approach can be used to triangulate findings. Finally, future research can measure dietary knowledge or biomarkers in schoolchildren.

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