



A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAM ON KNOWLEDGE REGARDING FLUOROSIS AMONG HIGH SCHOOL CHILDREN IN SELECTED SCHOOLS OF VADNAGAR

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ABSTRACT

Introduction Fluorosis is caused by excessive intake of fluoride. The dental effects of fluorosis develop much earlier than the skeletal effects in people exposed to large amount of fluoride. Acute high-level exposure to fluoride causes immediate effect of abdominal pain, excessive saliva, nausea and vomiting, seizure and muscle spasm may also occur. Although fluorosis is not a disease, its effects can be psychologically distressing and difficult to treat. Parental vigilance can play an important role in preventing fluorosis.

Objective: To assess the knowledge regarding fluorosis among high school children in selected schools of Vadnagar. To assess the effectiveness of video assisted teaching program on knowledge regarding fluorosis among high school children in selected schools of Vadnagar. To find out the association of the knowledge with their selected demographic variable.

Methodology: Research methodology is the systematic, theoretical analysis of the Method applied to a field of the study. Research methodology is one of the vital sections of a research, since the success of any research mostly depends upon the methodological issues that are followed in the execution of the research work. The role of methodology consists of procedures and techniques for concluding the study. This chapter deals with the methodological approach adopted for the study. It includes description of research approach, research design, setting of the study, population, sample, criteria for sample selection, sampling technique, development of the tool, scoring procedure, pilot study, data collection procedure and plan for data analysis.

Conclusion: The finding of the study revealed that video assisted teaching is effective in increasing the knowledge regarding fluorosis.

KEYWORDS- Assess, Effectiveness, Video Assisted Teaching, Knowledge, Fluorosis, High School Child

INTRODUCTION

Fluorine is the richest element in nature and about 96% of fluoride in the human body is found in bones and teeth. Fluorine is essential for the normal mineralization of bones and formation of dental enamel. The main source of fluorine is drinking water and food such as sea fish, cheese and tea. Recommended level of fluoride in drinking water in India is 0.5 to 0.8 mg/L. and 1 ppm is equal to 1 mg per liter of water. India was one of the worst fluorosis affected country with large no. of people suffering. This is because a large number of Indian rely on ground water for drinking purpose and water in many places is rich in fluoride.

The most efficient way to prevent caries is by using fluoridated dental products. Fluoride enters the body with food, through respiration and products containing fluoride. Fluoride is a part of the natural environment and is therefore constantly present in people's lives. However, concentration of fluoride can vary from one region to another. From a chemical point of view, it is the most electronegative and reactive of all the elements due to its small atomic radius. Since it is highly reactive, it is usually bound as inorganic fluoride and not found in its elementary state.

OBJECTIVES

1. To assess the knowledge regarding fluorosis among high school children in selected schools of Vadnagar.



2. To assess the effectiveness of video assisted teaching program on knowledge regarding fluorosis among high school children in selected schools of Vadnagar.
3. To find out the association of the knowledge with their selected demographic variable.

HYPOTHESIS

H₀: There will be a no significant difference between pretest and post test level of knowledge score regarding Fluorosis among the high school children at 0.05 level of significance.

H₁: There will be significant difference between pretest and posttest knowledge scores after administration of video assisted teaching programme regarding Fluorosis among the high school children at 0.05 level of significance.

RESEARCH METHODOLOGY

Research Design

In this study, a quantitative approach using pre experimental one group pretest –posttest design.

VARIABLES UNDER STUDY

- **Independent Variable:** The independent variable for the present study is the Video Assisted teaching regarding fluorosis.
- **Dependent Variable:** The dependent variable for the present study is knowledge of the fluorosis among high school children in selected schools of Vadnagar.

SETTING OF THE STUDY

The setting for this study is shri BN high school, Vadnagar and saraswati vidhyamandir, Vadnagar.

Population and Sample

In this study population selected for the present study comprised 100 children in selected high schools of Vadnagar.

Criteria for Selecting the Sample

Inclusive Criteria: Who are available at the time of data collection, who are willing to participate in the study, who can read and write in English.

Exclusive Criteria: Who are not cooperative during the time of data collection, Who are exposed to any education programme related to fluorosis.

Development of the Tool

The investigator has tried to eliciting the feelings, beliefs, experiences, perceptions, or attitudes of some sample of individuals by mean of developing a meticulous set of structured questionnaire. The questionnaire of the study is a very concise, pre-planned set of questions. The questionnaire was developed by the researcher for assessing the effectiveness of video assisted teaching programme on knowledge regarding fluorosis.

For the selection of the items and preparation of the tool, the following steps were taken. Review of research and non-research literature was conducted in area related to fluorosis. The self-prepared questionnaire taken from the books.

Data Collection Procedure

Permission was obtained from the head of schools in Vadnagar. The schedule for data collection Objective of the study were discussed and consent for participation in the study was taken from the selected group. The investigator assured the subject about the confidentiality of the data. The investigator administered the structured questionnaire for the test. The duration of the data collection for each sample was 30-35 minutes and then administered video assisted teaching programme then posttest was taken after 7 days.

Data Analysis Plan

Data analysis is the process of organizing and synthesizing the data so as to answer research questions and hypothesis.



The data analysis planned to include descriptive and inferential statistics. The plan of data analysis as follows

Ethical Considerations

As per ethical committee of Hemchandracharya North Gujarat University (HNGU) Research proposal was conducted after approval of dissertation committee. The written permission was obtained from selected high school at vadnagar. Details of the study informed to the authority and the students. The data was collected after obtaining consent from the participants.

RESULT

in this study overall the highest percentage in the demographic data including the age group 91% (14-15 year), Gender 50% male and 50% female ,standard of study 50% (11th class)50%(12thclass) , streamed of study 58% (arts) , area of residence 51% Urban, Type of family 73% Nuclear , Income above 15000 47% previous knowledge regarding fluorosis 91% (NO). Post test knowledge mean score (16.74 +4.41) was higher than the pre test knowledge mean score (12.16 + 4.16).

The calculated “T” value (42.64) was greater than the table value (1.98) at 0.05 level of significance. The pre test and post test mean % is 40.53% and 55.80% and different is 15.27%. So knowledge is increase after intervention. This indicates that the information booklet is effective in increasing the knowledge regarding fluorosis. Chi-square test to associate the level of knowledge with selected demographic variable.

Table: 1 Frequency and percentage distribution of High school children.

Level of Knowledge	Pretest		Posttest	
	F	%	F	%
Poor (0-10)	60	60%	00	00%
Average (11 – 20)	40	40%	61	61%
Good (21 – 30)	00	00%	39	39%

Table: 2 Mean and standard deviation of pre-test and posttest knowledge score of High school children.

Parameter	Mean	Standard deviation	Mean difference	‘t’ value
Pre-test	12.16	4.16	4.58	42.64
Post-test	16.74	4.41		

The data presented in Table 2 shows that the data also depicts that the mean post-test Knowledge score (16.74 ± 4.41) was apparently higher than that of mean pre-test (12.16 ± 4.16) knowledge score. Hypothesis H1 was accepted hence it can be inferred that the video assisted teaching programme was highly effective in increasing the knowledge of High school children regarding fluorosis.

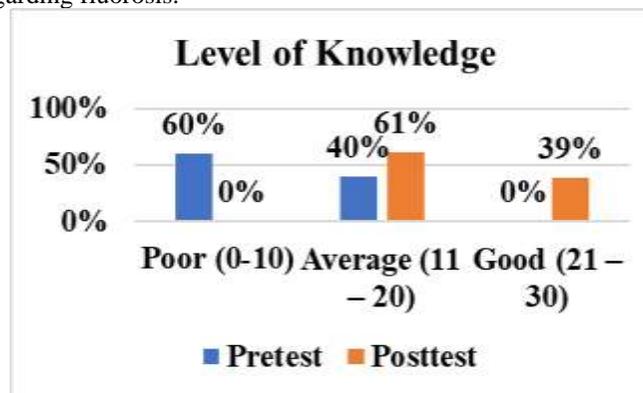


Figure-1 Column diagram showing Level of knowledge regarding fluorosis among the High school children.

DISCUSSION

The present study aims to evaluate the effectiveness of Video Assisted teaching program on knowledge regarding



Fluorosis among the high school children. The study was conducted by using Pre experimental one group pre-test post-test research design. at shri BN high school, Vadnagar and saraswati vidhya mandir, Vadnagar of vadnagar district was selected for conducting the study. The sample size was 100 children. The tool used for the study is self-Prepared questionnaire. Questions to assess the knowledge of the children regarding Fluorosis. The responses were analyzed through descriptive statistics (Mean, frequency percentage distribution, standard deviation) and inferential statistics (“t” test and chi square). The findings were computed based on the objective of the study.

Accordingly the objectives of the study was to assess the knowledge regarding Fluorosis among the children of selected high schools of Vadnagar, to evaluate the effectiveness of video Assisted teaching program on Knowledge regarding Fluorosis among Children and to find out the association between Knowledge Regarding Fluorosis with selected demographic variables.

CONCLUSIONS

The conclusion drawn from the finding of the study is as follows:

The “t” tests done to find the effect of video assisted teaching on knowledge among children of shri BN high school, Vadnagar and saraswati vidhya mandir, Vadnagar. It revealed that there is highly significant gain in knowledge of the children, after the Administration of the video assisted teaching program regarding Fluorosis.

The knowledge score of children regarding Fluorosis as revealed in the pre-test showed average knowledge score, where as in post-test the knowledge scores of the samples showed marked increase, which indicates that the video assisted teaching program is effective in increasing the knowledge of the samples regarding Fluorosis.

Also the calculated “t” value is 42.64, which is significantly higher than the “t” table value of 1.98 at 0.05 level of significance, which means that researcher rejects H_0 and accepted H_1 . Therefore, there is significant difference between average values of pre and post- test regarding general knowledge on Fluorosis, which gives an interpretation that there is significant gain in knowledge score of the sample in the post-test phase. This indicates that the video assisted teaching program was effective in increasing the knowledge of the samples.

From all the above findings it can be concluded that most of the children had average knowledge regarding Fluorosis. In the pretest After administration of video assisted teaching program, knowledge of majority of the children had considerably increased to a higher score in post-test than compared to the pre-test scores.

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