

Effectiveness of video assisted teaching programme on knowledge regarding 5 F's of disease transmission among children of selected schools, Tirupati.

Dr.M.Sreelatha,M.Sc(N).,Ph.D.,(N)¹., Mrs.G.H.Sree vani²
Dr.P.Sudha Rani M.Sc(N).,Ph.D.,³

¹Assistant Professor,Community Health Nursing, College of Nursing, SVIMS, Tirupathi.

²M.Sc (Nursing), College of Nursing, SVIMS, Tirupathi

³Principal, College of Nursing, SVIMS, Tirupathi.

Corresponding Author: Dr.M.Sreelatha

Abstract : Today increasing emphasis is based on health, health promotion, wellness and self-care.Children are the foundation of a strong and healthy nation. This study was designed to assess the effectiveness of Video assisted Teaching programme on knowledge regarding 5 F's of disease transmission among children of selected schools, Tirupathi. **Materials and Methods:** Pre experimental one group pre-test post-test design was used. Convenient sampling method was applied to choose 60 school children of 11-16 yrs age from Government high schools of Tirupathi. Self administered questionnaire was used to collect the data of pre and post test. Video assisted teaching programme was implemented for 40 mts before taking post test.**Results:** In pre-test, nearly more than half of the sample 35 (58.30%) were having Inadequate knowledge. Whereas in post-test, none of them were having Inadequate knowledge and Majority of the sample 48 (80%) were having adequate knowledge and only 12 (20%) of the sample were having moderate knowledge. In this study it was identified that there was significant association between the knowledge scores and socio demographic variables at $p < 0.01$ level and $p < 0.05$ levels.The present study revealed that Video assisted teaching programme had improved knowledge of school children regarding F's of disease transmission.

Key words : Effectiveness, VATP, 5 F's, Disease transmission.

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I. Introduction

Children are the foundation of a strong and healthy nation. Children constitute more than 1.2 billion worldwide, and about 21% of Indian population. Morbidity and mortality occurring in this age group is mostly due to preventable causes. Young and growing children have poor knowledge and lack of awareness about communicable disease transmission and the ill health affecting them. The major barriers for this are : Lack of accurate information , absence of proper guidance , parents ignorance, lack of skills and insufficient services from health care delivery system in developing countries, children are affected by diseases that are preventable and treatable with simple interventions. The entry of the causative agent of the disease into the human body and its multiplication is known as the infection. A disease is caused due to a specific organism or by its toxic products. It is transmitted from man, animal, or from environmental agents like food wastes, air, soil and dust, fluid, flies, feces and fomite which is called 'communicable disease'. These infectious agents may transmit through 5 F's i.e., Food, Fingers, Fluids, Flies and Fomites. As a result of the growing prevalence of communicable diseases and the related cost burden, health promotion and illness prevention is increasingly important.As the name suggests, feco-oral diseases are diseases that occur when the causative organisms which are excreted in the stools of infected persons (or less commonly animals) gain entry into the human host via the mouth. Therefore, the organisms have to pass through the environment from the feces of an infected person to the digestive system of a susceptible person. This is known as the feco-oral transmission route. Faeco-oral transmission of organisms causing disease occurs mostly through fecal contamination of food, water and hands which is not at all apparent. Very small amounts of feces can carry, enough organisms to establish infection. Seemingly sparkling clear harbour infective organisms. Clean-looking hands may carry and transmit enough micro-organisms to spread diseases.⁵

II. Materials And Methods

This cross sectional study was conducted among school children of Mangalam Trends Govt High school, Tirupathi, Andhra Pradesh, India between October 2018 to July 2019.

Study design : Pre experimental one group pre test post test design
Study location : Government High school, Tirupati, Andhra Pradesh, India.
Study duration : October 2018 to July 2019
Sample Size : 60 School children
Sampling technique : Convenient Sampling Technique

Inclusive Criteria:

Children who were

- * studying at Mangalam Trends Govt.High school, Tirupathi
- * willing to participate in the study.
- * able to communicate English and Telugu.
- * having age between 11 - 16 years

Exclusion Criteria:

Children who were

- * physically and mentally compromised.
- * not available at the time of the study

Procedure Methodology

After written informed consent was obtained, a self administered questionnaire was used to collect the data from school children. The tool consists of two sections:Section-1Consists of socio-demographic data and Section-2 consists of 33 knowledgequestions on five F's of disease transmission.In pre test the data was collected from 60 school children and with the help of digital equipment the investigator displayed video for 40 minutes on the same day. After 7 days of video teaching post test was conducted to the same children by same questionnaire.

Statistical Analysis :

After giving score to each student, pre and post test results were tabulated. Descriptive and inferential statistics were used for the analysis of knowledge regarding Five F's of disease transmission between pre test and post test.

Descriptive statistics:

Such as Frequency, Percentage, Mean and Standard deviation were used for demographic data in pre and post test scores.

Inferential statistics:

Chi-square test was used to determine the association between knowledge on Five F's of disease transmission among school children with their socio demographic variables.Paired t-test value was obtained between pre and post test knowledge on Five F's of disease transmission among school children.

III. Results

Major Findings Of The Study:

- In pre test, out of 60 children 35(58.30%) were having inadequate knowledge, 25(41.70%) were having moderate knowledge and none of them were having adequate knowledge
- In post test 48(80%) were having adequate knowledge, 12(20%) were having moderate knowledge and none of them were having inadequate knowledge.
- In pre test the mean score was 30.53 and Standard deviation value was 9.40 and in post test mean knowledge was 55.20 and Standard deviation value was 3.64. The t-value was 21.783 and the p value was 0.000. Hence the hypothesis H_{01} was rejected. It evidenced that the Video assisted programme was significantly effective on improving knowledge regarding Five F's of disease transmission.
- The researcher identified that there was significant association between the pre test knowledge and socio demographic variables such as Educational status of mother, Occupational status of mother, occupational status of father, and monthly family income were significant at $p < 0.01$ level and health facilities distance by home was significant at $p < 0.05$ level
- The association of post test knowledge scores of children with socio- demographic variables such as Age of the child, Occupational status of the mother were significant at $p < 0.01$ level, whereas, Gender, source of information were significant at $p < 0.05$ level. Hence the Hypothesis H_{02} was rejected.

IV. Discussion

The present study is mainly focused on to assess the knowledge regarding Five F's of disease transmission among school children. The problem statement of this study was "Effectiveness of Video assisted teaching programme on knowledge regarding Five F's of disease transmission among children of selected schools of Tirupathi"

The first objective of the study was to assess the knowledge regarding Five F's of disease transmission among school children by pre test.

The result of the present study can be supported by the results of a study which was conducted to assess the knowledge, attitude and practices of water handling, sanitation, defecation practices in rural Tamilnadu, India. The study revealed that among 97 households interviewed, 30(30.9%) had toilets, but only 25 (83.3%) used them. 74.2% of respondents defecated in open fields. Hand washing with soap after defecation and before meals was common only in children under 15 years (86.4%). After adjusting for other factors, perception of quantity of water received ($P<0.01$) were significantly different between the Main village and Harijan colony.

The second objective was to evaluate the effectiveness of video assisted teaching programme on knowledge regarding 5F's of disease transmission among school children by post test.

These results of this study can be supported with the previous study which was conducted to evaluate the effectiveness of computer assisted teaching programme on knowledge regarding 5 F's of disease transmission among children of selected morarji desai residential school at Hassan district of Karnataka. An evaluative approach with pre-experimental one group pre test post test design was used with stratified random sampling technique to select the sample of 60. A structured knowledge questionnaire was used to assess the knowledge and CATP was administered to find its effectiveness. The collected data was analyzed by using descriptive & inferential statistics. The mean percentage of post test knowledge score (78.44%) was higher than the mean percentage of pre test score (38.44%). The results indicated that the CATP was an effective in increasing the knowledge of students on prevention of 5 F's of disease transmission.

The third objective was to find the association between pre and post test knowledge regarding 5 F's of disease transmission among school children and with their selected socio demographic variables.

The above findings were in consistent with findings of a study which was conducted on prevalence of intestinal parasites and its relationship with some hygiene habits and socio-demographic characteristics of students in Yigilca. Education and training courses provided to the intervention group, about the prevention of parasitic diseases and habits of cleaning. 540 cellophane tapes and 523 stool samples were studied. Among the samples analyzed, 87 (16.1%) with *Enterobius vermicularis*, 79 (15.1%) with *Giardia intestinalis*, 73 (13.9%) with various non-pathogenic parasites, were found. *G.intestinalis* was highly positive among the children who do not wash their hands after defecation. Also some intestinal parasites were found to be related to the socio-demographic characteristics of families; parental education, family income, and father's profession were found to be associated with the presence of intestinal parasites and study concluded that education on hygiene will prevent parasitic diseases from an early age.

V. Conclusion

The present study revealed that Video assisted teaching programme had improved knowledge of school children regarding F's of disease transmission.

Nursing Implications:

A felt need was observed to organize awareness campaigns for preventing the occurrence of diarrhoeal diseases among school children, thereby healthy life styles will be enhanced.

The findings of this study have implications in various areas of Nursing I.e., Nursing practice, Nursing Education, Nursing Administration and Nursing Research.

Nursing Practice

- An educational campaign conducted by the nursing personnel both in the hospital and in the community areas helps in detecting the problems related to Five F's of disease transmission. So that it helps for early diagnosis and treatment for disease problems.

- The nurses play a vital role in health promotion and prevention. Education programs with effective teaching strategies motivate the people to follow healthy practices in day-to-day life. Health information can be imparted through various teaching methods with appropriate IEC activities, any teaching strategy which is simple, clear and attractive, allows the learner to understand and follow instructions easily. Hence, nurses should

take keen interest in preparing different teaching strategies, which are suitable to increase the knowledge of specified focus groups.

Nursing Education

- The nursing curriculum should consist of knowledge related to teaching strategies and various modalities. So that nursing students can use different teaching methods to impart the appropriate knowledge on Five F's of disease transmission to the focus group. The student's learning experiences should provide an opportunity to conduct health education campaigns and supervised nursing practices about specific topics.
- Nurses at postgraduate level need to develop skills in preparing health teaching materials based on level of understanding of focused groups.

Nursing Administration

- The nurse administrator should organize the awareness campaigns, especially focusing school health programmes by in providing information on Five F's of disease transmission including early detection of diarrhoeal problems and prevention of causative factors.
- The nurse, as an administrator should plan, organize, conduct I.E.C activities to motivate the nursing personnel in conducting health programmes, which are beneficial to the community. Such programmes requires efficient team work, planning for resources which includes man power, budget and material that are essential to conduct education programmes.

Nursing Research

- As inadequate knowledge and ineffective practices related to Five F's of disease transmission are leading to more health problems, so there is a need for early prevention.
- Researchers can focus on different teaching practices, which will have quality and cost effectiveness.

Limitations:

1. The study was conducted over a small group of target population selected by convenient sampling technique. Hence generalization is limited to the students of Mangalam Trends Govt High school, Tirupathi.
2. Teaching plan was not based on learning needs of the subjects under the study but on the basis of the review of literature and investigators experience.
3. Extraneous variables like exposure to media, learning in working environment, peer contact or any other events occurred in the period between pre test and post test were beyond the investigators control as control group was not used, therefore there were possibilities of threats to internal validity.
4. No attempts were made to do the follow up to check the retention of knowledge of students.

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