

A Pre - Experimental Study to Assess the Effectiveness of Video Assisted Teaching Programme on Knowledge regarding 5 F's of Disease Transmission (Food, Finger, Fluid, Fomite, Faeces) among Children in selected Schools of District Kangra, H. P.

Dixa¹, Shikha Mehra²

¹M. Sc. Nursing Community Health Nursing

²Associate Professor and H. O. D Community Health Nursing, Netaji Subhash College of Nursing, Palampur, Himachal Pradesh
Email: diksha70188[at]gmail.com

Abstract: *The health of children plays an important role because children are the base source for the future of mankind. Young and growing children have lack of knowledge towards communicable disease transmission and causing ill effects on their health. Lack of accurate information, improper guidance, parent ignorance etc. So dissemination of health information through children is one of the way of increasing knowledge on health. A Pre - experimental one group pre - test post test design, 60 children were selected by using non probability purposive sampling technique from selected schools of district Kangra, Himachal Pradesh. Video assisted teaching program was administered after the assessment of pre - test knowledge regarding 5 F's of disease transmission (Food, Finger, Fluid, Fomite, Faeces). Post - test knowledge was assessed on the 7th day of administration of Video assisted teaching program through self structured knowledge questionnaire. The result of the study showed significant difference between the mean pre - test knowledge score was 12.13 and the mean post test knowledge score was 25.6 and t value obtained (25.15) was found to be statistically very highly significant at 0.05 level of significance. Hence it shows that mean post test knowledge score was greater than mean pre test knowledge score, which shows the effectiveness of video assisted teaching programme.*

Keywords: Effectiveness, Video Teaching Program. Knowledge, 5F's of disease transmission

1. Introduction

Health is not just the physical wellbeing of an individual but also the social, emotional and cultural wellbeing of the community. Healthy life styles represent the person in the society in a useful manner but unhealthy life styles among an individual will lead to a disease. Today increasing focus on health, health promotion, wellness and self care. Food plays an important role in transmitting disease, because it can be directly or indirectly contaminated through polluted water, dirty hands, contaminated soil, flies, and animal. Also Blood and body fluids, such as saliva, semen and vaginal fluid, can contain viruses that can be spread and increase the chances of risk of HIV, hepatitis B, or hepatitis C, or other blood borne illness. Schools are the ideal place for the spread of infectious disease. So dissemination of health information in children through School is one of the way of increasing knowledge on health and modification of behaviour which can leads to promotion of health and prevention of disease.

Need of the Study

The principal route of transmission of infectious disease by the "five F's" disease transmission that is food (eating contaminated food); finger (unwashed hands); fluid (contamination of water); fomite (spreading disease from faeces to food); faeces (contamination of soil with faecal

matter). Disease caused by bacteria, viruses, fungi and other parasites are major causes of death. According to WHO, global burden of infectious disease due to poor sanitation and hygiene involves 3 - 5 billion cases and 2 million deaths are due to from ingestion of contaminated food or drinking water. . The statistics of India for the year of 2013 has showed that total number of cases suffering with diarrhoea 15215, dysentery, 8158, typhoid 1639, and infective hepatitis cases were 277, which proved the role of 5 F's in disease transmission. . Poor hand hygiene cause infectious diseases. According to the WHO, hand washing is an inexpensive and effective way to prevent infection and control disease.

Objectives

- 1) To assess the pre - test and post test knowledge scores regarding 5 F's of disease transmission (Food, Finger, Fluid, Fomite, Faeces) among children.
- 2) To compare the pre - test and post - test knowledge scores regarding 5 F's of disease transmission (Food, Finger, Fluid, Fomite, Faeces) among children.
- 3) To find out the association of post - test knowledge scores regarding 5 F's of disease transmission (Food, Finger, Fluid, Fomite, Faeces) among children with their selected socio demographic variables.

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Methods

Research Design: A Pre - experimental: One group pre - test - post test design is used because it involved the manipulation of independent variable to observe the effect on dependent variable.

Population: The population of the present study was 60 children, target population was all the Children, accessible population was children in selected schools of district kangra (H. P) Govt. School Rajpur and govt. School Balakrupi will fulfil the selection criteria.

Sample and Sample Technique:

- The sample of present study was 60 children in selected schools
- In present study sample was selected by Non probability sampling technique.

Criteria for sample collection:

a) Inclusion criteria:

This study includes children who were:

- Willing to participate in the study.
- Present at the time of data collection.
- Able to read and write Hindi and English language.

b) Exclusion criteria:

This study excludes children who were:

- Not willing to participate in the study.
- Be sick at the time of data collection.

Description of Tool: The tool consists of three sections:

Section - 1: There were 10 items to collect socio - demographic information such as age, religion gender, class, type of family, family monthly income, type of diet, source of drinking water, and type of washroom facility and history of any infection.

Section - 2: It consists of self structured knowledge questionnaire for knowledge regarding 5F's of disease transmission. Total items were 30 questionnaires. In which right answer was documented as correct one mark and wrong were documented were as zero marks.

Knowledge Score	%	Range
Inadequate knowledge	≤ 33%	0 - 10
Moderate knowledge	34 - 66 %	11 - 20
Adequate knowledge	≥ 67%	21 - 30

Section - 3: video assisted teaching programme was prepared regarding 5fs of disease transmission

Content Validity of Tool: There are 10 experts of different fields of nursing. Experts are requested to judge the items of tool for clarity, relevance, appropriateness for the purpose of the study and give their opinion and suggestion on the content. The developed tool was given to an English and Hindi language expert for the corrections. As per the suggestions, the modification was implemented. The tool was computed by test retest by administering the tool for 6 children in DPS School Palampur and the value of split half

method was 0.93 so the tool was reliable. For final study written permission was obtained from the concerned authorities before the data collection and provides information to the participants. Pre - test: on 1st day pre - test was administered in the form of self - structured knowledge questionnaire. Immediately after pre - test, video assisted teaching programme was given and Post - test was conducted on the 7th day using the same self - structured knowledge questionnaire.

Results

Section -1 The section describe the frequency and percentage distribution of socio - demographic variables

Table 1: Frequency and percentage distribution were calculated describing the socio - demographic variables

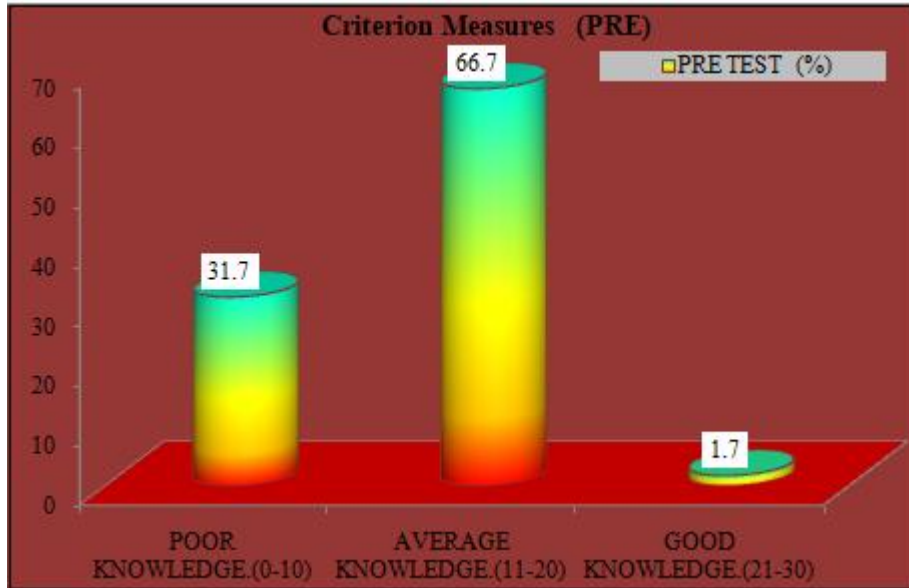
S. NO.	Selected Variables	Frequency (%)
1	Age (yrs)	
	10years	38(63.3%)
	11years	22(36.7%)
2	Religion	
	Hindu	58 (96.7%)
	Muslim	01(1.7%)
	Christian	01(1.7%)
	Others	00(0.0%)
3	Gender	
	Male	26(43.3%)
	Female	34(56.7%)
4	Class	
	3 rd	00(0.0%)
	4 th	20(33.3%)
	5 th	20(33.3%)
	6 th	20(33.3%)
5	Type of Family	
	Joint	32(53.3%)
	Nuclear	28(46.7%)
	Extended	00(0.0%)
6	Family monthly income in Rupees	
	<10,000	13(21.7%)
	10,001-15,000	16(26.7%)
	15,001-20,000	17(28.3%)
	>20,001	14(23.3%)
7	Type of Diet	
	Vegetarian	44(73.3%)
	Non-Vegetarian	16(26.7%)
8	Source of Drinking water	
	Hand Pump	14(23.3%)
	Tap	36(60.0%)
	Well	08(13.3%)
	River	02(3.3%)
9	Type of Washroom Facility	
	Open Field Defecation	02(3.3%)
	Common Washroom	16(26.7%)
	Separate washroom	42(70.0%)
10	Any Infection	
	Yes	16(26.7%)
	No	44(73, 3%)

Section 2 Frequency and percentage distribution of pre - test and post - test knowledge scores of children regarding 5fs of disease transmission

Table 2: Frequency and percentage distribution of Pre - test knowledge scores of children
N=60

Level of knowledge	Pre - test knowledge score	Frequency (%)
Poor	0 - 10	19 (31.7%)
Average	11 - 20	40 (66.7%)
Good	21 - 30	01 (1.7%)

Maximum score= 30 Minimum Score=0

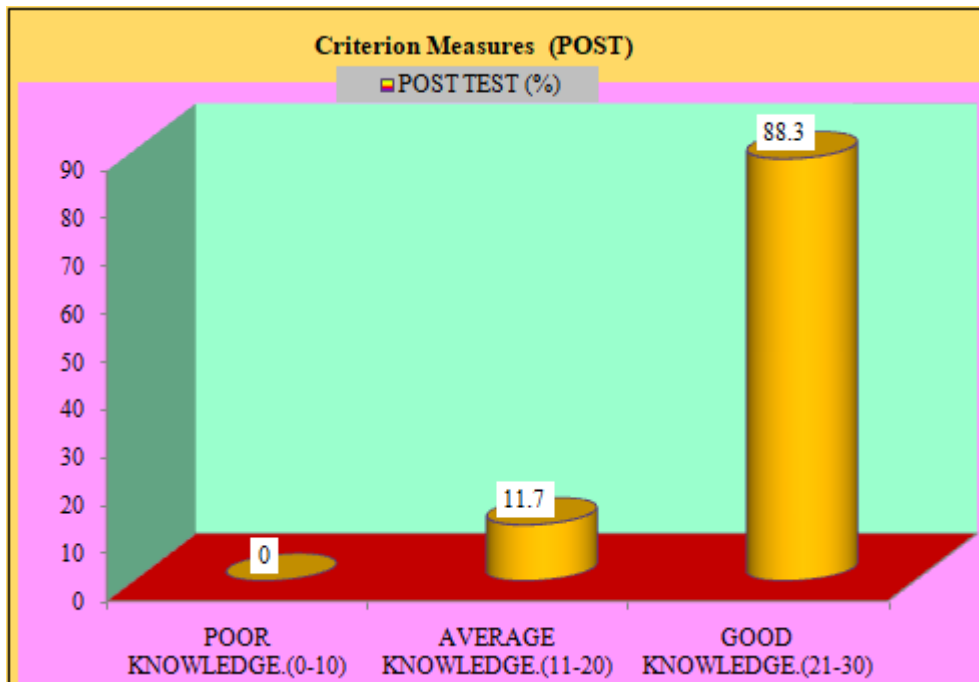


Bar diagram showing percentage of pre - test level of knowledge of children

Table 3: Frequency and percentage distribution of Post - test knowledge scores of children, N=60

Level of knowledge	Post - test knowledge score	Frequency (%)
Poor	0 - 10	0 (0%)
Average	11 - 20	07 (11.7%)
Good	21 - 30	53 (88.3%)

Maximum score= 30 Minimum score=0



Bar diagram showing percentage of post - test level of knowledge of children

Section 3: Comparison of pre - test and post - test knowledge scores of children regarding 5fs of disease transmission

Table 4, N=60

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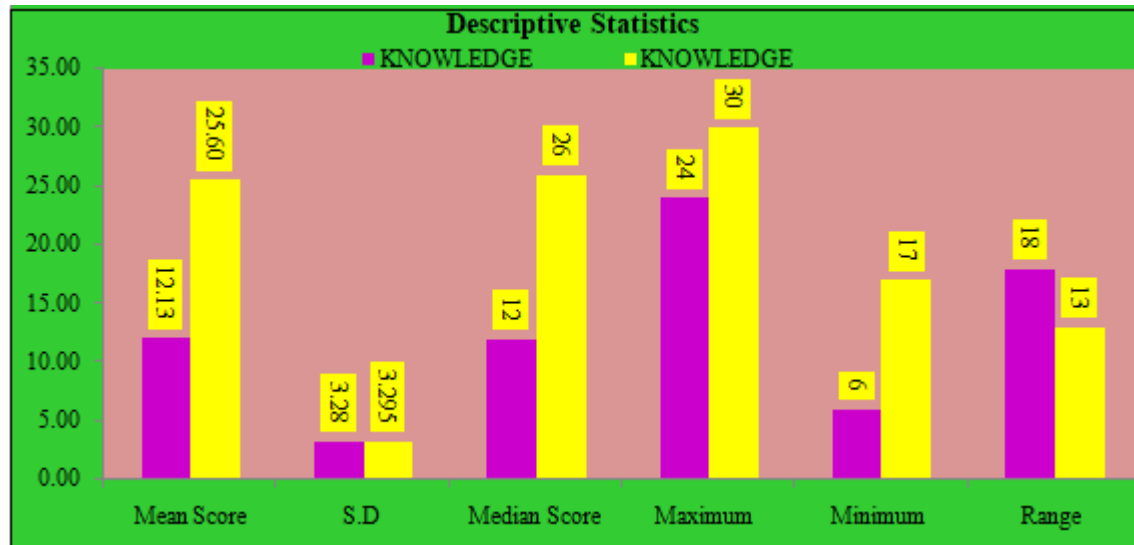
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Level of knowledge	Mean	SD	Mean%	Range	Mean Diff	t value	P value
Pre test knowledge	12.13	3.275	40.40	6 - 24	13.470	25.15*	<0.001
Post test knowledge	25.6	3.295	85.30	17 - 30s			

Maximum = 30 Minimum= 0

Significant level =0.05



Bar diagram showing comparison between pre test and post test knowledge score

Section 4 Chi - square showing the association of post - test knowledge scores with their selected socio - demographic variables

Table 5, N=60

S. NO.	Selected Variables	Good Knowledge	Average Knowledge	Poor Knowledge	χ^2	Df	P Value
1	Age (in yrs)				0.224	1	0.636
	10 Years	20	5				
	11 Years	33	2				
2	Religion				7.802*	2	0.02
	Muslim	52	6				
	Hindu	1	0				
	Christian	0	1				
3.	Gender				0.703	1	0.402
	Male	24	2				
	Female	29	5				
4.	Class				0.323	2	0.851
	3 rd	0	0				
	4 th	17	3				
	5 th	18	2				
5.	6 th	18	2		1.952	1	0.162
	Type of Family	30					
	Joint	23	2				
	Nuclear	0	5				
6.	Extended		0		2.589	3	0.459
	Family Monthly Income in Rupees						
	<10, 000	13	0				
	10, 001 - 15, 000	13	3				
7.	15, 001 - 20, 000	15	2		0.621	1	0.431
	>20, 001	12	2				
	Type of Diet						
	Vegetarian	38	6				
8.	Non - Vegetarian	15	1		1.586	3	0.662
	Source of Drinking Water						
	Hand pump	12	2				
	Tap	31	5				
	Well	8	0				
	River	2	0				

9.	Type of Washroom Facility					
	Open Field Defecation	1	1			
	Common washroom	14	2	3.05	2	0.218
	Separate washroom	38	4			
10.	Any infection					
	Yes	14	2	0.015	1	0.903
	No	39	5			

Data depict the chi - square of socio demographic variables and the level of knowledge of children and there was significant level of knowledge with **religion** and they were found statistically significant at 0.05 level of significance. Hence research hypothesis is H_2 is partially accepted.

2. Discussion

The result of present study shows that video assisted teaching programme is effective in improving the level of knowledge of children that is from mean pre - test knowledge score (12.13) to mean post - test knowledge score (25.6). The t value obtained was 25.16 at ≤ 0.05 which was significant. These finding were consistent with the finding of **Mr. Rajeswari Chohan** that the t - test is 31.50 was found highly effective in increasing the knowledge regarding 5fs of disease transmission among children.

3. Conclusion

The result from this study reveals that implementation of video teaching programme to assess the knowledge of children regarding 5F's of disease transmission was adequate. Keeping in view of the present research study findings, the following recommendations are offered for future research.

- A similar study can be conducted among other age group
- The similar study can be conducted in rural or urban areas
- There should be major initiative to spread awareness among the general public by conducting periodic mass education.

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Author Profile

Shikha Mehra, Associate Professor, Department of Community Health Nursing, Netaji Subhash College of Nursing, Palampur, (H. P) University India, Email: shikhamehra45:[at]45yahoo.com



Ms. Dixa: M. Sc nursing 2nd year, Netaji Subhash College of Nursing, Palampur, Himachal Pradesh University, India, Corresponding author Email: diksha70188[at]gmail.com