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Effectiveness Of Video Assisted Teaching On Knowledge And Practices Regarding Prevention Of Worm Infestation Among Mothers Of Under Five Children In Selected Anganwadi Centers Of Rural Areas At Bengaluru, Karnataka State, India.

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ABSTRACT

Human experiences over the ages have shown that there is a great sorrow on the death of infant and children. Involvement of mothers in educating the preventable diseases among under five children reduces the onset and spread of communicable illnesses in general and worm infestation in particular. The study was accomplished with the objectives of effectiveness of VAT on knowledge and practice, correlation between knowledge and practice, and association between post-test knowledge and practice score of mothers of under five children regarding prevention of worm infestation with selected demographic variables. A quasi-experimental non-randomized control group design was used. The conceptual frame work used was Imogene King's Goal Attainment theory. The sample size was 60 mothers of under five children selected by purposive sampling technique. The data was collected by conducting structured interviews on knowledge and practice prior and after using VAT. The mean post-test knowledge score of subjects in experimental group was higher than mean post-test knowledge score of subjects in control group (90.37 > 28.57). The mean post-test practice score of subjects in experimental group was more than of subjects in control group (94.37 > 42.93). The improvement in knowledge and practice was significant at 0.05 levels. There was a significant correlation between pre-test and post-test knowledge and pre-test and post-test practice score of subjects in both groups. The overall findings of the study indicates that the video assisted teaching was effective in enhancing the knowledge and practices of mothers regarding prevention of worm infestation.

Keywords: Effectiveness; Video assisted teaching; Knowledge; Practices; Prevention of worm infestation; Anganwadi centers; Mothers.

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INTRODUCTION

Children, the future citizens form an important segment of any community. They contribute to the vital human potential and in future they would impart strength to the national economy and development¹. Children constitute a major proportion of the global population today. It has been reported that 10% of population living in the world are under fives². Healthy children, who are a vital resource to ensure future well-being of a community, are at the same time, at the highest risk of intestinal infestations. Intestinal parasites account for much of the morbidity and mortality among the under fives³.

In India, 225 million preschool and school-age children are estimated to be at risk of infection from worms. India accounts for (65%) of soil-transmitted helminthes (parasitic worms) cases in South East Asia and (27%) of cases globally⁴. In India, the maximum prevalence is seen in Karnataka (47%) followed by Andhra Pradesh (40%)⁵. Parents have always been the primary guardians of the health of their children. Parents who have demonstrated themselves as ideal following the good healthy practices through their own behavior and additionally communicated to their children are the reasons for such practices that can be expected from the children to assume responsibility for dealing with their own healthy lifestyle, yet mothers in rural areas lacks knowledge in treatment, controlling, and preventing worm infestation in under five children.

A descriptive and co-relational study was conducted to assess the knowledge and practices of mothers regarding worm infestation among school children aged between 6- 12 Years in a selected rural community, Bangalore. The results revealed that majority of the mothers had moderately adequate knowledge (65%) and moderate practices (72%) regarding worm infestations. There was a correlation ($r = 0.482$) between knowledge and practices of mothers regarding worm infestations. The study concluded that there is a need to improve the knowledge and practices with regard to prevention of worm infestation⁶.

A comparative study was conducted to assess the knowledge regarding worm infestation in children among urban and rural mothers attending OPD in Guru Teg Bahadur Sahib Hospital, Ludhiana, Punjab. The sample size was 100 mothers having children in the age group of 0-10 years. The sample included 50 mothers residing in urban area and 50 residing in rural area. The findings of the study revealed that mean knowledge score of urban mothers was higher (18.86) as compared to rural mothers (16.96) regarding worm infestation in children⁷.

A quasi experimental study was conducted to evaluate effectiveness of video assisted teaching programme on worm infestation among the mothers of under-five children in selected wards of Pozhiyoor, Kerala. The sample size was 30. The results revealed that, before the intervention the knowledge score was (53.3%) and Post-test knowledge score was (66.70%). The paired value (9.4, $p < 0.01$) shows that, the increase in knowledge score was a result of the intervention, which was statistically significant at 0.01 level. The study concluded that the video assisted teaching programme was found effective in increasing the knowledge on worm infestation among the mothers of under five children⁸.

Mother is the primary caregiver, yet mothers in rural areas lacks knowledge in treatment, controlling, and preventing worm infestation in under five children. And even investigator herself not only has been experienced with cases of children admitted in hospital with worm infestation but also observed worm ball which was drained from intestine in certain cases. Therefore, this aimed to evaluate the "Effectiveness of video assisted teaching on knowledge and practices regarding prevention of worm infestation among mothers of under five children in selected Anganwadi centers of rural areas.

MATERIALS AND METHODS



Description of the tool:

The structured interview schedule and practice checklist was developed to assess the knowledge and practices of mothers under five children regarding prevention of worm infestation.

The tool consisted of Part I, Part II and Part III.

Part I: Socio- demographic proforma.

Part II: Structured interview schedule on prevention of worm infestation.

The structured interview schedule consisted of 35 items that were divided into three areas.

Area-A: General information 4 (11.42 %).

Area-B: Causes, Mode of transmission, symptoms & Complications 16 (45.71%).

Area-C: Prevention and Treatment 15 (42.85%).

Each question has four options with one accurate answer. Each correct answer was given a score of 'one' mark and wrong answer was given 'zero' score. The maximum score can be 35.

The respondents were categorized in to three groups based on the level of knowledge score

Adequate knowledge: 75-100%, Moderate knowledge: 51–75 %.Inadequate knowledge: >50%.

Part III. Practice checklist on prevention of worm infestation. The practice checklist consisted of 16 items. The respondents categorized into three groups based on the levels of practice score.

Poor Practice: (> 50%), Fair Practice: (51–75%). Good Practice (<75%).

Reliability of the tool: Karl Pearson's correlation coefficient formula and spearman brown's prophecy formula was used to find out the reliability of the tool. The reliability was 0.97.

RESULTS

Data were entered in master sheet, for tabulation and statistical processing. The findings were presented under the following headings. Distribution of subjects according demographic variables, aspect wise and overall distribution of score in pre-test and post-test knowledge and practice, correlation between knowledge and practice and association between knowledge and practice score with selected demographic variables.

The socio-demographic data related to age, religion, educational status of mother, occupation of mother, monthly income of the family, type of family, number of under five children, age of the children, latrine facility, type of house, type of diet, water storage facility and source of information presented in table-1. Table 2 reveals that the post-test mean percentage knowledge was higher than the pre-test mean percentage knowledge of subjects regarding prevention of worm infestation (90.37 > 24.08). The difference in mean pre-test and post-test knowledge score was statistically significant at 0.05 level [$t_{29}=31.74$, $P < 0.05$].

Table-3 depicts that the post-test mean percentage knowledge of subjects in experimental group was higher than of subjects in control group regarding prevention of worm infestation (90.37 > 28.57). The difference in post-test knowledge score was statistically significant at 0.05 level [$t_{58}=34.33$, $P < 0.05$]. Table 4 shows that the post-test mean percentage practice score was higher than the pre-test mean percentage practice score of subjects regarding prevention of worm infestation (94.37 > 44.56). The difference in mean pre-test and post-test practice score was statistically significant at 0.05 level [$t_{29}=29.15$, $P < 0.05$]. Table- 5 reveals that the post-test mean percentage practice score of subjects in experimental group was higher than of subjects in control group regarding prevention of worm infestation (94.37 > 42.93). The difference in post-test practice score was statistically significant at 0.05 level [$t_{58}=34.19$, $P < 0.05$]. Table-5 and table shows association between posttest knowledge and practice score with selected variables in both the groups. The association was found only between educational status with selected demographic variable ($X^2=13.665$, $P < 0.05$). There was a correlation between pre-test and post-test knowledge and practices of subjects regarding prevention of worm infestation both in experimental and control group.

Table 1: Description of demographic characteristics of subjects.

Variables	Experimental Group, n=30		Control Group, n=30	
	Frequency	Percentage	Frequency	Percentage
Age of Mother (in years)				
Below 25	11	36.7	09	30.0
25-30	15	50.0	13	43.3
31-35	03	10.0	08	26.7
Above 35	01	3.3	00	00.0
Religion				
Hindu	20	66.7	19	63.3
Muslim	08	26.7	07	23.3
Christian	02	06.7	04	13.3
Educational Status of Mother				
No formal education	02	06.7	02	06.7
Primary education	10	33.3	13	43.3
Secondary education	09	30.0	13	43.3
PUC & Graduate	09	30.0	02	06.7
Occupation of the Mother				
Home maker	20	66.7	27	90.0
Agriculture	06	20.0	02	6.7
Private employee	04	13.3	01	3.3
Monthly income of the family				
5000 -8000	08	26.7	09	30.0
9000 - 12000	15	50.0	16	53.3
≥12000	07	23.3	05	16.7
Type of Family				
Nuclear	10	33.3	09	30.0
Joint	20	66.7	21	70.0
Number of under five children				
One	17	56.7	21	70.0
Two	13	43.3	09	30.0
Age of the children				
1-2 Years	04	13.3	07	23.3
2-3 Years	08	26.7	13	43.3
3-4 Years	11	36.7	06	20.0
4-5 Years	07	23.3	04	13.3
Latrine Facility				
Open field defecation	04.0	13.3	08.0	26.7
Own latrine	19.0	63.3	13.0	43.3
Sharing toilet	07.0	23.3	09.0	30.0
Type of House				
Semi Pucca	06	20.0	12	40.0
Pucca	24	80.0	18	60.0
Type of Diet				
Vegetarian	07	23.3	04	13.3
Non-Vegetarian	23	76.7	26	86.7
Water Storage Facility				
Closed container	30	100.0	30	100.0
Source of Information				
Health worker	14	46.7	14	46.7
Anganwadi worker	10	33.3	09	30.0
Mother-in-law	06	20.0	07	23.3

Table 2: Comparison of Pre-test and Post-test knowledge level of subjects regarding prevention of worm infestation in experimental group.

Aspects	Max. Score	Subjects' knowledge				Paired 't' Test
		Mean	SD	Mean (%)	SD (%)	
Pre test	35	8.43	4.695	24.08	13.41	31.741*
Post test	35	31.63	3.508	90.37	10.02	

Table 3: Comparison of Post-test knowledge level of subjects regarding prevention of worm infestation in experimental and control group.

Post-test level of knowledge	Mean	SD	Mean (%)	SD (%)	Student 't' Test
Experimental group	31.63	3.508	90.37	10.02	34.33*
Control group	10.00	3.639	28.57	10.39	

Table 4: Comparison of pre-test and post-test practice level of subjects on prevention of worm Infestation in experimental group:

Aspects	Max. Score	Subjects practice level				Paired 't' Test
		Mean	SD	Mean (%)	SD (%)	
Pre test	16	7.13	1.502	44.56	9.38	29.15*
Post test	16	15.10	1.494	94.37	9.33	

Table 5: Comparison of post-test practice level of subjects on prevention of worm infestation among experimental and control group

Post-test level of practice	Mean	SD	Mean (%)	SD (%)	Student 't' Test
Experimental group	15.10	1.494	94.37	9.33	34.19
Control group	6.87	1.776	42.93	11.10	

Table 6: Association of the post -test knowledge scores with selected demographic Variables of subjects in Experimental and control group

Demographic characteristics		Experimental Group		Control Group	
		Chi-square value	inference	Chi-square value	inference
Age of mother (in years)	Below 25	7.540	NS	4.239	NS
	25- 30				
	31-35				
Religion	Hindu	1.697	NS	1.186	NS
	Muslim				
	Christian				
Educational status of mother	No formal education	13.665	S	1.635	NS
	Primary education				
	Secondary education				
	PUC and Graduate				
Occupation of Mother	House maker	3.394	NS	3.765	NS
	Agriculture				
	Private employee				
	5000-8000/-	1.707	NS	1.001	NS
	9000-12000/-				

Monthly income of the family (in rupees)	≤ 12000/-				
Type of family	Nuclear	0.068	NS	0.106	NS
	Joint				
Number of under five Children	One	1.475	NS	0.238	NS
	Two				
Age of children	1-2 Years	0.435	NS	1.906	NS
	2-3 Years				
	3-4 Years				
	4-5 Years				
Latrine facility	Open field defecation	5.321	NS	0.393	NS
	Own latrine				
	Sharing latrine				
Type Of House	Semi Pucca	0.305	NS	0.023	NS
	Pucca				
Type of diet	Vegetarian	0.810	NS	0.192	NS
	Non-Vegetarian				
Source of information	Health Worker(PHC)	3.801	NS	0.205	NS
	Anganwadi Worker				
	Mother-in law				

Table 7: Association of the Post -test Practice scores with selected demographic Variables of subjects in Experimental and control group

Demographic characteristics		Experimental Group		Control Group	
		Chi-square value	inference	Chi-square value	inference
Age of mother (in years)	Below 25	1.518	NS	2.316	NS
	25- 30				
	31-35				
Religion	Hindu	1.697	NS	2.627	NS
	Muslim				
	Christian				
Educational status of mother	No formal education	0.588	NS	1.635	NS
	Primary education				
	Secondary education				
	PUC and Graduate				
Occupation of Mother	House maker	0.679	NS	2.840	NS
	Agriculture				
	Private employee				
Monthly income of the family (in rupees)	5000-8000/-	1.808	NS	1.852	NS
	9000-12000/-				
	≤ 12000/-				
Type of family	Nuclear	0.068	NS	1.296	NS
	Joint				
Number of under five Children	One	0.222	NS	1.296	NS
	Two				
Age of children	1-2 Years	2.617	NS	0.902	NS
	2-3 Years				
	3-4 Years				
	4-5 Years				
Latrine	Open field defecation	0.942	NS	0.108	NS

facility	Own latrine	1.663	NS	2.801	NS
	Sharing latrine				
Type Of House	Semi Pucca	2.935	NS	0.192	NS
	Pucca				
Type of diet	Vegetarian	2.172	NS	0.238	NS
	Non-Vegetarian				
Source of information	Health Worker(PHC)	2.172	NS	0.238	NS
	Anganwadi Worker				
	Mother-in law				

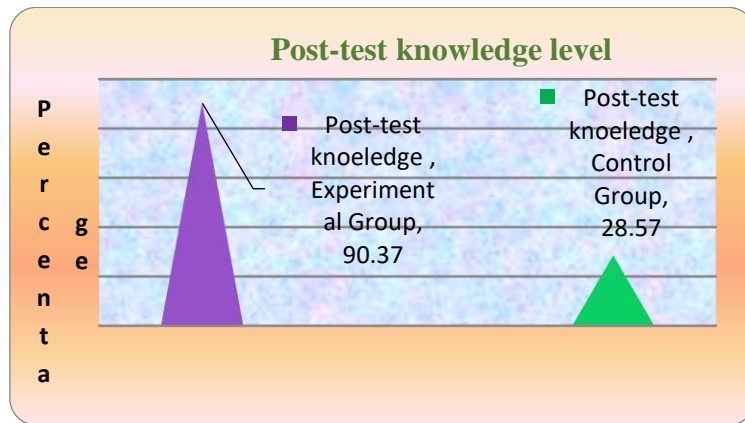


Figure 1: Post-test knowledge level of subjects on prevention of worm infestation among experimental and control group

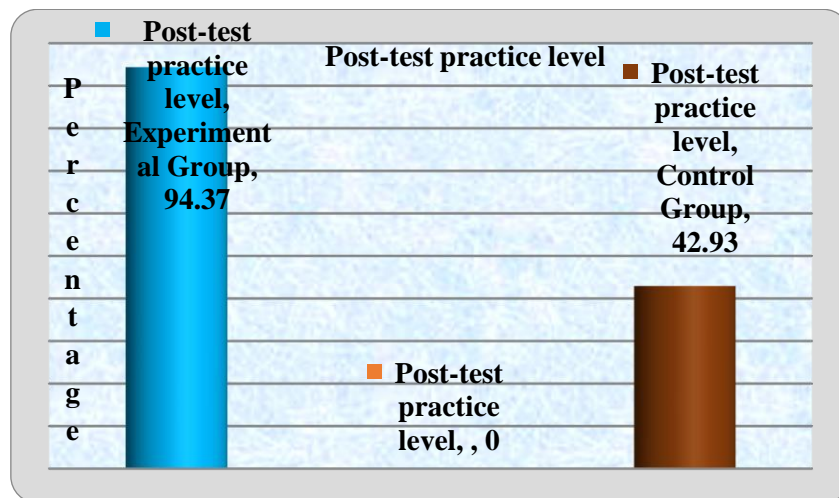


Figure 2: Post-test practice level of subjects on prevention of worm infestation among experimental and control group

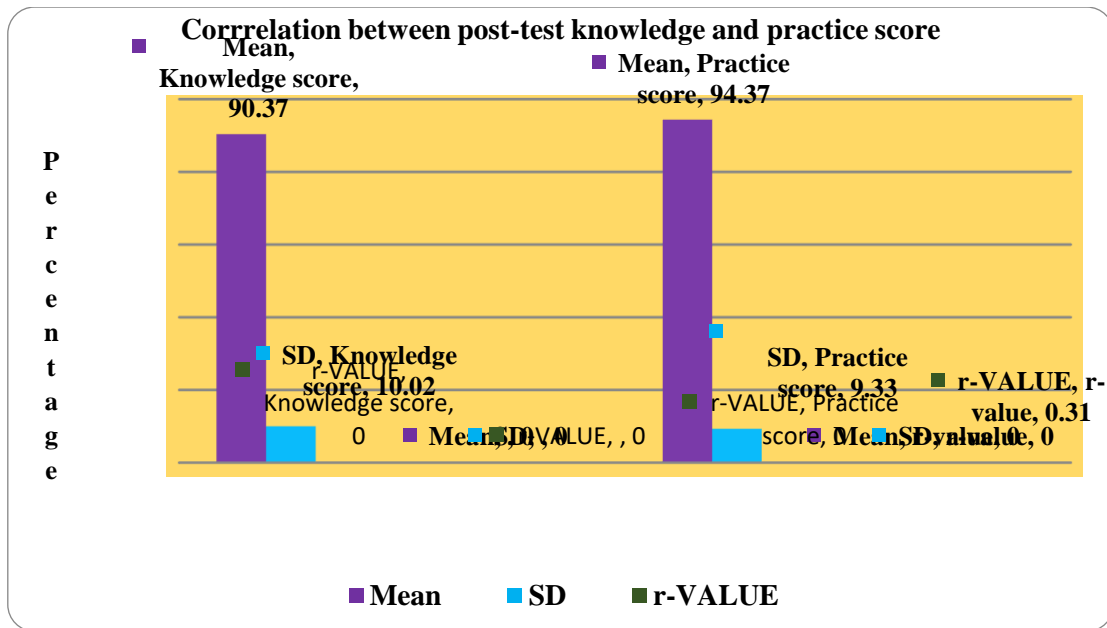


Fig 3: Correlation between post-test knowledge and practice level on prevention of worm infestation among subjects in experimental group.

DISCUSSION

Mothers’ knowledge and practices regarding prevention of worm infestation among under five children was inadequate before intervention, after video assisted teaching the knowledge and practice scores improved in posttest. The present study concluded that video assisted teaching was effective in enhancing the knowledge and practices of mothers regarding prevention of worm infestation. The study findings were supported by the findings of others research studies conducted in India and abroad. It appears that mothers lack adequate knowledge and practices regarding prevention of worm infestation and Video assisted teaching was effective teaching tool in enhancing the mother’s knowledge and practices regarding prevention of worm infestation. The present study recommends that similar study could be conducted by using different teaching method and even involvement of anganwadi workers as a change agent in teaching approaches.

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