

Effectiveness of Child to Child Approach through Structured Teaching Programme on Knowledge Regarding Worm Infestation among Secondary School Children

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Abstract: Children can be highly effective agents for social change if they utilize their creativity and powers of persuasion in a concentrated and directed way. Children often communicate and share more than adults, and in some cases are more literate than their parent. "A pre-experimental study to assess the effectiveness of child to child approach through structured teaching programme on knowledge regarding worm infestation among Secondary School Children at selected school of New Delhi" was conducted for the partial fulfillment for the reward of degree of Masters of Science in Nursing. The Objectives of the study was to develop structured teaching programme on worm infestation and assess its effectiveness through child to child approach in terms of gain in knowledge of Secondary School Children, New Delhi and to find out the association between the pre-test knowledge score of Secondary School Children with selected demographical variables. A quantitative approach with pre-experimental one group pre-test and post-test design was used and STP was developed and was validated by seven experts from different filed of nursing. The sample size was 50 with 10 change agents who were selected by multi-stage sampling technique method from 9th standard students. Data was collected using structured knowledge questionnaire. Data was analyzed using descriptive and inferential statistics. The mean of pre-test scores regarding worm infestation was 13.04 with S.D of 3.8. After the change agents gave teaching to samples through child to child approach, there was marked improvement in the knowledge scores, mean of post- test scores was 18.48 with S.D of 4.6 which was apparently higher from the mean of pre-test scores and the mean difference was 5.44, the calculated paired' test value ((t49=7.912, p<0.05) is greater than the table value (t tab=2.021) which represents significant gain knowledge by using the child to child approach through structured teaching programme.

Keywords: Effectiveness, STP, Child-to-Child approach, worm infestation, Secondary School children

1. Introduction

Worm infestation is the commonest public health problem in the world. It is the Condition of harboring one or more worms in the intestine with or without manifestation of the symptoms. Worms are the parasites which live at the expense of the host. It affects all people irrespective of age, sex, class, creed and nationality; it is more common in school age children. The main reason for high prevalence in our country is deficient sanitation and hygiene. Prevention and control of worm infestation is easier and more effective than treating the complication [1].

Children can be highly effective agents for social change if they utilize their creativity and power of persuasion in a concentrated and directed way. Children often communicate and share more than adults, and in some cases are more literate than their parents. The child-to-child approach was developed for the international year of the child (1979) by a group of health and education professionals. The founder being Huge Hawes, a senior educationalist and Dr. David Morley a senior pediatrician. They introduce child to child as a new way of providing health education to school aged children [2].

The main focus of child to child approach is activity oriented

method of teaching, where emphasis is placed on the development of participatory approach of learning and teaching. In child to child programme the health educator may be a primary school teacher or a health worker. They motivate the child to help each other. The goal was to improve health with the help of positive health practices among children based on activity oriented learning methods. The child has the power to spread the health messages [3].

2. Material and Methods

A Quantitative approach with pre-experimental one group pre-test and post-test design was used in the study. 60 students of 9th standard of selected school were selected by using multi –stage sampling technique, out of which 10 students were change agents who got highest marks in pre-test and remaining 50 students were taken as sample of the study, **so sample size is 50**, change agents were not taken in the sample. In order to achieve the objectives, a structured knowledge questionnaire consisting of demographic variables and 30 multiple choice questions was developed based on the related literature and consultation with experts. The obtained Knowledge score was Poor knowledge (0-10), Average knowledge (11-20), Good knowledge (21-30).

The reliability of the questionnaire was calculated using split

half formula and the value of “r” was found to be = 0.87, thus the tool was found to be reliable.

The obtained data was analyzed in terms of the objectives and hypothesis using descriptive and inferential statistics.

3. Data Collection Procedure

Data collection was done after taking written informed consent from the students. On 1st day, by using multi-stage sampling technique 60 children of 9th standard were selected and pretest was held for all. Using purposive sampling technique the students who got highest marks were selected as change agents (10) and remaining students (50) were taken as sample in the study. On 2nd and 3rd day, structured teaching programme was given by investigator to change agents in a 45 min session each day by using PPT. On 4th day, post –test and rehearsal was done to determine the level of knowledge and teaching skills. Corrections were made by the investigator to improve the teaching skills. On 5th and 6th day a teaching session was taken by the change agents for 50 students through child to child approach using same content PPT in 1:5 ratio. On 11th day, post –test of samples was taken by the investigator.

4. Result and Discussion

The present study depicts the effectiveness of child to child approach through structured teaching programme on knowledge regarding worm infestation among secondary school children. Study showed that, there was significant difference between pre-test and the post-test knowledge score. The **pre-test knowledge score was 13.04** with standard deviation 3.80. The **post –test knowledge score was 18.48** with standard deviation 4.69. This shows significant **mean difference of 5.44**. This indicates that the post-test knowledge score was consistently higher than the

pre-test score. The significant difference between the pre-test and post-test knowledge score was analyzed by using paired ‘t’ test. The calculated ‘t’ value (**t’= 7.91**) was **higher than the table value (‘t’=2.021) at 0.05 level of significance**. Hence the null hypothesis was rejected and research hypothesis was accepted. It was inferred that there was a significant difference between the pretest knowledge score and the post-test knowledge score of the samples regarding worm infestation. This indicated that child to child approach using structured teaching programme was effective in increasing the knowledge level of the samples regarding worm infestation.

The present study was supported by **Priya V and P.Abirami et al. (2016)** [4] who conducted a pre-experimental study to evaluate the effectiveness of child to child approach on prevention and management of worm infestation among school children in Chengelpet, Kancheepuram district, Tamilnadu. Quantitative approach and pre-experimental one group pre-test and post- test designed were adopted based on the inclusion and exclusion criteria. The total number of 100 children were selected by the non- probability convenient sampling technique. Structured knowledge questionnaire was developed by the researcher to assess the knowledge on prevention and management of worm infestation. The results of the study showed that before giving child to child approach pre-test knowledge level of 50 (50%) students was inadequate and remaining 50(50%) students had moderate knowledge, none of the sample had adequate knowledge. After implementing the structured teaching programme 78 (78%) students had adequate knowledge, none of them have in adequate knowledge. The investigator found that child to child approach in improving the level of knowledge on prevention and management of worm infestation was effective. (t=31.15;p=0.0001)

Table and Figures

Table 1: Association between the pre-test knowledge score of samples with selected demographical variables, n=50

Variables	Opts	Poor	Average	Good	Chi Test	Table Value	df	P value	Result
Age of child	13-14 years	8	14	0	0.758*	3.841	1	0.384	NS
	15-16 years	7	21	0					
Type of family	Nuclear	2	5	0	0.398*	5.991	2	0.819	NS
	joint	12	29	0					
	extended	1	1	0					
Father’s Education	Illiterate	1	2	0	6.835*	7.815	3	0.077	NS
	Primary education	9	8	0					
	Secondary education	3	16	0					
	Graduate and above	2	9	0					
Dietary habits	Veg	7	15	0	0.440*	5.991	2	0.802	NS
	Non-Veg	2	3	0					
	Mixed	6	17	0					
Other habits	Nail- biting	11	21	0	1.030*	5.991	2	0.597	NS
	Thumb sucking	2	5	0					
	Pica	2	9	0					
	open	6	16	0					
Toilet facility at home	own toilet	7	23	0	1.587*	3.841	1	0.208	NS
	common toilet	8	12	0					
	No	10	16	0					

NS= Not significant

*Not Significant at the level of 0.05

**Significant

The above table no.1 showed that the association of pre-test knowledge score with their selected demographic variables by using Chi-square, it was evident that, chi-square value is

lower than the table value at 0.05 level of significance, there was no significant association between pre-test knowledge score with age, type of family, father’s education, dietary

habits, other habits and toilet facility at home.

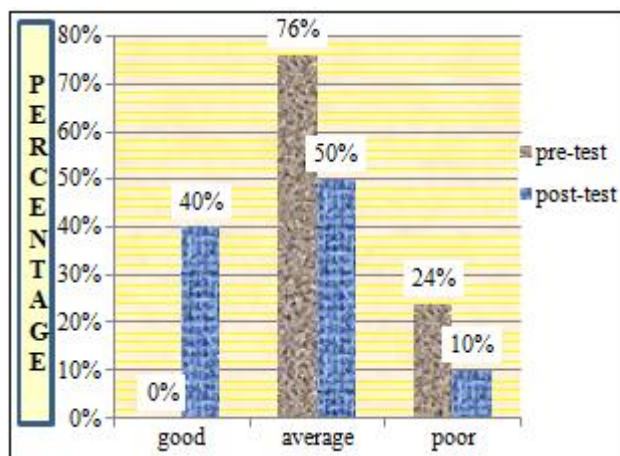


Figure 1

Bar diagram represents percentage distribution between pre-test and post test knowledge scores of samples regarding worm infestation, n=50

Data in figure no-1: Majority of the samples 38 (76%) had average knowledge 12 (24%) of the samples had poor knowledge and 0 % had good knowledge regarding worm infestation in the pre-test. While 25(50 %) of the samples had average knowledge, 20 (40%) of the samples had good knowledge and only 5 (10%) had poor knowledge in post-test .

Table 2: Showing Mean, mean difference, paired ‘t’ test value, standard deviation of pretest and post test knowledge scores of samples, n=50

Test	Mean	Standard deviation	Mean Difference	Paired ‘t’ test
Pre- test	13.04	3.80	5.44	‘t’ _{cal} =7.91*
Post-test	18.48	4.69		

‘t’_{cal} =7.91* at p >0.05 level, ‘t’ tab= 2.021, df=49

Table No.2 depicted that there was significant difference between pre-test and the post-test knowledge score. The **pre-test knowledge score was 13.04** with standard deviation 3.80. The **post –test knowledge score was 18.48** with standard deviation 4.69. This shows significant mean difference of 5.44. This indicates that the post-test knowledge score was consistently higher than the pre-test score. The significant difference between the pre-test and post-test knowledge score was analyzed by using **paired ‘t’ test**. The **calculated ‘t’ value (‘t’= 7.91)** was higher than the **table value (‘t’=2.021)** at 0.05 level of significance. Hence the null hypothesis was rejected and research hypothesis was accepted. It was inferred that there was a significant difference between the pretest knowledge score and the post-test knowledge score of the samples regarding worm infestation. This indicated that child to child approach using structured teaching programme was effective in increasing the knowledge level of the samples regarding worm infestation.

5. Conclusions

Majority of the students were in the age group of 15-16 years, belongs to joint family and their fathers and mothers were senior secondary educated and majority of students were vegetarian and having nail-biting habits and having closed drainage facility at home and having their own toilet at home . Majority of students were not having previous knowledge regarding worm infestation. Finding showed the effectiveness of child to child approach through structured teaching programme as the knowledge score of students increased after child to child approach.

References

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