Original Article

EFFECTIVENESS OF CHILD-TO-CHILD TEACHING APPROACH ON KNOWLEDGE REGARDING WORM INFESTATION AND ITS PREVENTION AMONG CHILDREN

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Abstract

Intestinal worm infections brought on by soil are the most prevalent infections worldwide and they affect the most oppressed and common societies. They are transmitted by the gametes in human faeces, which further contaminate the soil in unsanitary locations. More than 1.5 billion people, or 24% of the world's population, have intestinal worm illnesses that are spread through soil. Over 267 million pre-schoolers and over 568 million school-age children who live in areas where these leeches are widely distributed need to be dealt with and prevented. Objectives: The study's objectives were to assess the knowledge of children on worm infestation, evaluate the effectiveness of the child-to-child teaching approach on worm infestation among children and determine the association between the children's knowledge and selected socio-demographic variables. Methods: The researcher adopted a pre-test post-test design to check the effectiveness of the child-to-child teaching approach on knowledge regarding worm infestation and its prevention among children of the government primary school of Goraj, the sample for the study and sample size was 100. 100 sample was selected by the nonprobability purposive sampling technique. The pre-test was conducted which is followed by the administration of worm infestation knowledge and prevention questions. Collected data were evaluated by using descriptive and inferential statistics. Results: In this study, the majority shows that 4% of the children had poor knowledge, 15% of children had Average knowledge and 81% of children had good knowledge regarding worm infestation. Conclusion: despite the fact, that 81% of the children have good knowledge and 15% of the children have average knowledge and 4% of the children have poor knowledge regarding worm infestation. Demographic variables influence on the knowledge regarding worm infestation among the selected primary school of Waghodia Taluka.

Keywords: Effectiveness, Child-to-Child Approach, Worm infestation, Primary school children.

1. INTRODUCTION

Each year, 10th of February is National Deworming Day to make awareness of the significance of deworming among all nursery and school-age children between the ages of 1-19 years. It is run via the Government of India's Ministry of Health and Family Welfare. Deworming is done through the stages of schools and Anganwadi centers in demand to improve children's overall health, nutritional status, access to schooling, and quality of life. (National Deworming Day, 2022) Child to child approach health education is an innovative, simple, profitable, and participating approach that makes use of the possibility of children to take full advantage of the spread of health messages. It is an active technique that inspires learning through activity and enjoyment. They cooperate with each other to study and impact adults. The problem of disease due to these stomach parasites is an estimated 22.1 million disability-adjusted life-years (DALYs) lost for hookworm, 10.5 million for roundworm; and 6.4 million for whipworm infection. (Santhanalakshmi S. , 2016) Awasthi S (2008) described that parasitic worm infections are more prevalent among school children aged 5-14 years. Crompton (2002) reported heavy hookworm burden is the major etiology for iron deficiency anemia in young children. (Priya, 2016)

According to the World Health Organization, 1100 million people defecate in exposed open areas, which results in high rates of ecological infection and exposure to the risk of worm infestations. community is over 50%. (Amagloh, 2012) This involvement lessens the worm burden, which lowers prevalence. When the prevalence of parasitic worm infestations in the general population exceeds 20%, medication should be administered once per year, and twice per year when the frequency of parasitic worm infections is higher. (Kumar, 2014) By 2020, it is the goal of the entire world to eradicate childhood parasitic

worm illness. In endemic nations in 2013, over 368 million school-aged children received anthelmintic medication or 42% of all children at risk. (Riaz, 2020)

Due to its direct relationship to healthy practices and hygienic settings, worm infestation is the most prevalent problem in children and therefore has a unique value for the study. (RB, (2013)) It is commonly known that people live in polluted areas in Vadodara's underprivileged residential neighbourhoods. Later, it was decided to control the study to determine how well the child-to-child teaching strategy compared to the conventional approach to health education on worm infestation. thus, the researcher found a gap in the knowledge of children in relation to the worm infestation therefore the study has been conceptualized.

2. Materials and methods

A quantitative research approach was adopted to conduct this study and the design used was a pre-test post-test research design to evaluate the efficacy of child-to-child teaching approach on knowledge regarding worm infestation and its prevention among children the sample for the study and sample size was 100. A nonprobability purposive sampling method was used for sample selection. Independent Variable was Child to the child teaching approach and Dependent Variable was Worm infestation and its prevention. In this study, the population is School going children of Government Primary school Goraj, Waghodia. The sample criteria of the study, inclusive includes students studying in 6th to 8th standard, who are studying in the same school and who are present at the time of data collection, and exclusion is those who are below 10 years and above 14 years of age. Tools used in this study was the Knowledge Structured Questionnaire on knowledge regarding worm infestation and its prevention. Collected data were analyzed using descriptive and inferential statistics. The study was approved by the ethical committee of the institution at Parul University, Vadodara. The ethical approval number is PUIECHR/PIMSR/00/081734/37012. The Data collection permission was obtained from the concerned authority, the principal of the primary school of Goraj. Written consent was taken from the participants with the assurance of confidentiality. This study was conceptualized on the basis of Roy's Adaptation health belief model.

3. Results

A total of 100 participants were selected in this study. According to the standard of children, 36% of children are in the 6th standard, 29 % of children are in the 7th Standard, 34% of children are in the 8th standard and as per Gender of children, 72% of children are Females and 28% of children are Male. As mentioned for the age of children, 22% of children are in the category of 11 years, 16% are in 12 years, 31% are in 13 years and 31% of children are in the category of 14 years. As stated, use of toilets,47% of children use the personal toilet,26% of children use Open-air defection and 27% of children use public toilets. According to the waste found in the environment,1% of Human waste, 5% of Animal faeces, 21% of plant leaf, and 73% of food waste is found in their Environment. According to the Source of Drinking water 16% of children drink municipal corporation water, 69% of bore well water, 3% of pond water and 12% of children drink River water. As per Method of purification of the drinking water 1% of children use filtering water, 2% of RO water and 97% of normal water. Aa stated to Education of student Fathers, 14% of the student father had completed their studies at primary school, 70% had completed their studies in secondary school, 13% had completed up to higher secondary school,1% had completed graduation and 2% were illiterate. As mentioned for Education of student mother, 42% of the student mother had completed their studies at primary school, 45% till secondary school as well as 2% had higher secondary school,1% had completed their studies graduation and 10% were illiterate. As mentioned for Family income 31% of family income is 1000-5000/-, 8% is between Rs.5001-6000/-, 44% ranges between Rs.6001-10000/- and 9% is between 10001-15000 and 8% is more than 15000. As well as in Food/Dietary patterns, 90% of children have only vegetarian foods and 10% of have nonvegetarian foods. As per stated, in a week how many times you consume outside food 87% consume 0-3 times, 9% for 4-6 times, and 4 % are more than 6 times. For Hand Washing (How Many Times in a day you perform) 23% wash their hands 1-4 times in a day, 47% of children 5-8 times in a day and 30% were more than 8 times in a day. Among all the selected socio-demographic variables of Standard, Age, Types of toilet use, students father education, student Mother education, and handwashing, there is a significant association between knowledge score with selected socio-demographic variables. And Gender, Type of waste found, sources of drinking water, Methods of purification of water, Family income, Food/Dietary Patterns, in a week how many times you consume outside food, Hand Washing (How Many Times in a day you perform), there is no significant association between knowledge score with selected socio-demographic variables.

Fig: 1 Assessment of mean and standard deviation of knowledge score

n-100

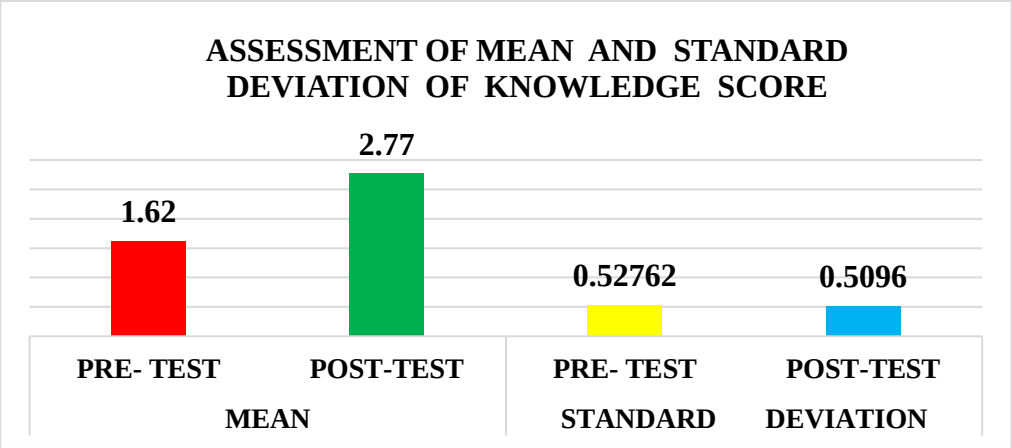

Table 1: Level of knowledge n-100

Level of Knowledge	Frequency(f)		Percentage (%)	
	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST
Poor	40	4	40.00%	4.00%
Average	58	15	58.00%	15%
Good	2	81	2.00%	81.00%

Table 2: Evaluates the effectiveness of the child-to-child teaching approach on worm infestation among children

Paired T-Test	Mean Score Mean ± SD	Analysis Value	Confidence Interval	Interpretation
Pre-test Post-Test	14.71 ± 4.37	t = 16.062 p = 0.001	13.8433 to 15.5766	Significant

4. DISCUSSION

In March 2014 in Mangalore, comparable research on the efficacy of a child-to-child approach to health education in the prevention of worm infestation among children of chosen primary schools was conducted under the direction of Leena K.C. and Sr. Jacinta D'Souza. According to the research, there is a notable difference in the mean knowledge scores of children in the groups receiving conventional health instruction (t=5.61, p0.05) and children learning from children (t=6.42, p0.05). The post-health education knowledge scores showed a significant difference (t=2.06, p0.05). Pre-health education knowledge scores and parental education were shown to be significantly correlated (x = 9.74, p 0.05). The research comes to the conclusion that children's understanding of common children's concerns is effectively increased by peer-to-peer health education and good peer training. (Leena, 2014)

The impact of organised training programmes on knowledge about the control of worm infestations among primary school students at chosen government schools in Karnataka was examined in related research by (Dandagi SR, Moreshwar SA, and Raddi SA 2013). After the implementation of a structured teaching programme, pre-test knowledge was 21.75 percent, post-test knowledge was 64 percent, and knowledge gained was 42.25 percent. According to the results of the pre-test evaluation of knowledge about worm infestation prevention, 50 children (41.66 percent) had average knowledge and 70 children (58.33 percent) had inadequate knowledge. The pre-test and post-test data analysis showed that the mean post-test score (30.854.08)

was greater than the mean pre-test score (8.783.8) after the intended educational programme had been administered.

According to the research, there is a substantial relationship between knowledge scores and a few demographic factors. The research finds that the child-to-child method to health education successfully raises children's understanding about worm infestation via appropriate intervention and incentive.. (Dandagi, 2013)

5. Conclusion

The present study's effectiveness of the child-to-child teaching approach regarding worm infestation in the selected school of Waghodia Taluka. The result revealed that the majority shows that 4.00% of children had poor knowledge, 15.00% of children had Average knowledge and 81.00% of children had good knowledge regarding worm infestation. Demographic variables influence the knowledge regarding worm infestation among the selected primary school of Waghodia Taluka.

Consent and ethical approval:

APPROVAL NO: PUIECHR/PIMSR/00/081734/37012 Formal ethical approval was received from the institutional ethical committee, informed consent was obtained from participants, and assured of anonymity.

Conflict of interests

Authors have declared that no conflict of interests exist.

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