

# A STUDY TO EVALUATE THE EFFECTIVENESS OF CHILD-TO-CHILD APPROACH THROUGH ROLE PLAY ON PREVENTION OF WORM INFESTATION BY COMPARISON OF PRE AND POST TEST SCORES

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**Abstract:** Today's children are tomorrow's adults. The way of life is changing; earning has increased tremendously and forces both parents to work to meet with requirements of life. Sometimes even in the rural areas families may not have elders like grandmothers to give support for the care of younger children from 6-9 months to 5 years are left under the care of elder siblings between the age of 6-7 and 12-14 years, are termed as mother substitutes. Hence one of the important aspects of the care of children whether urban or rural was the simple training of these mother substitutes. So 'Child-to-Child' programme was developed. Child to Child programme, which is an original approach to education for health, applies to school age children. It makes children feel responsible for their own health. Pre-experimental design was selected to assess the knowledge of the primary school children regarding prevention of worm infestation. A structured interview schedule was developed to assess the effectiveness of Child-to-Child approach through role play on prevention of worm infestation. Mean percentage of pre test was 37.34% and post test was 62.66. SD of pre test was 3.791 and post test was 2.785.

**Index Terms -** Child-to-Child approach, Role play, Prevention, Worm infestation, Infection, Soil-transmitted helminthis.

## I. INTRODUCTION

Children are assets of our country. The children of school going age form a very high proportion of India's population both in rural and in urban areas. The number of school children is 5-14 years age group constitutes about 15% of the total population. It is a period of physical growth and development. Early detection of disease is made in a controlled group of population. A large number of defects can be timely corrected and many infections can be timely immunized. It is, therefore, important that the physical and mental health of this segment of the population should be the concern of all those responsible for ensuring the health of the people. Worm infestation is one of the common cause of suffering by human being. Small children are particularly prone because they play in the mud and dirt, suck their fingers, eat soil, run barefoot outdoors and sometimes have less than ideal toilet hygiene. There are many types of worms, which infect us and give rise to different problems. The common worm infections found in human beings are: 1) Round worm, 2) Hook worm, 3) Thread worm and 4) Tape worm.

Out of many techniques of control and prevention of diseases, teaching has gained wide importance in reference to health. Today's children are tomorrow's adults. The way of life is changing; earning has increased tremendously and forces both parents to work, to meet with requirements of life. Sometimes even in the rural areas. Families may not have elders like grandmothers to give support for the care of younger children from 6-9 months to 5 years are left under the care of elder siblings between the age of 6-7 and 12-14 years, are termed as mother substitutes. Hence one of the important aspects of the care of children whether urban or rural was the simple training of these mother substitutes. So 'Child-to-Child' programme was developed.

The first Child-to-Child programme started at the University of London. Here teachers and doctors from the Institutes of Child Health and Education, working with colleagues from all over the world, developed many of the ideas and activities. The Child-to-Child approach has now spread all over the world, and wherever it is found, we will also find the same partnership of health and education workers developing the same central ideas.

Child to Child programme, which is an original approach to education for health, applies to school age children. It makes children feel responsible for their own health. This approach uses active teaching methods in which learning takes place through the dynamics of investigations, group work and play. When they learn in class room is immediately applied to everyday life at school and home.

The Child-to-Child approach was developed for the international year of the child (1979) by a group of health and education professionals. The goal was to improve health and reduce infant mortality by engendering positive health practices among children. Based on activity-oriented learning methods, the approach is now used in programme in over 90 different countries. These range from structured programs in schools to the participation of children in community health programs in urban slums.

Child-to-Child activities make use of pictures, role play, puppets, poetry, street theatre, sketches, mime, games, masks, choral speaking, radio, dance, film/ video, to help children understand better.

Present study has been conducted to determine the effectiveness of Child-to-Child approach through Role-play for prevention of worm infestation among primary school children belonging to 9 to 10 years of age group. Various primary schools of Jaipur District, Rajasthan were chosen to collect data through survey.

## II. REVIEW OF LITERATURE

Webb JK (2000) Child to Child is an approach to health education of the primary school-age child. In developing countries, infants and young children spend much of their lives in the care of an older brother or sister.

Chandrashekar M.R., Nagesh (2003) conducted study on intestinal helmenthic infestation in children at Hubli, Karnataka.

Ahmed A.K., Malik B., Shaheen B., Yasmeen, Dar J.B., Mona A.K. et. al. (2003) conducted a cross section study on frequency of intestinal parasitic infestation in children of 5-12 years of age in Abbottabad.

Sharma B.K., Rai S.K., Rai D.R., Choudhury D.R., (2004) conducted study on prevalence of intestinal parasitic infestation in school children in the north eastern part of Kathmandu Valley, Nepal. A total of 533 school children included, a questionnaire was given and fecal samples were collected.

Wagbatsoma V.A., Aisien M.S.(2005) conducted cross sectional study on helminthiasis in selected children seen at the University of Benin teaching hospital, Benin City, Nigeria.

Hawes, Hugh (2005) The Institutes of Education and of Child Health of the University of London organized the initial meetings of what was to become a worldwide concept.

Babul F 2007, The Ministry of Education in collaboration with Aga Khan Foundation, Tanzania has developed the Child-To-Child project on health education in Zanzibar.

UNICEF Evaluation Office, June 2010, the purpose of UNICEF's Getting Ready for School programme is to facilitate the successful transition of young children into primary school through the use of older school children (Young Facilitators) as providers of early childhood education support to younger children in their communities.

Chaita R A quasi experimental study was conducted to assess the effectiveness of "Child-to-Child programme" through a structured teaching programme on knowledge regarding prevention of worm infestation in Chennai in children aged 10 years.

Leena K.C. & Sr. Jacinta D'Souza ,Mangalore conducted a study on worm infestation a common childhood problem, which affects growth and development of children and has a close relationship with the socio demographic and ecological factors like poverty, illiteracy, poor personal and environmental hygiene.

## III. METHODOLOGY

Present study has been conducted to determine the effectiveness of Child-to-Child approach through Role-play for prevention of worm infestation among primary school children, and for the objectives to be accomplished, an evaluative approach was considered appropriate.

The selection of design depends upon the purpose of the study, research approach and variables to be studied. One group pre-test-post-test research design, which belongs to pre-experimental design, was selected to assess the knowledge of the primary school children regarding prevention of worm infestation.

The pre-experimental design consists of pre-test and post-test observations made on different days with only one of selected groups and without a control group.

In this one group pre-test post-test design (O1 X O2), the investigator introduced a base measure before and after a planned exposure which is depicted as O1 and O2 respectively. In the present study, the measure is the knowledge of the school children regarding prevention of worm infestation and the independent variable is the Child-to-Child approach through Role play 'is depicted as X. The pre-experimental design chosen for the study is depicted in Table 1

**Table-1: Schematic representation of Research design**

Group		Pre-test	Intervention	Post-test
Primary School children (100)		Day-1 O <sub>1</sub> (Dependent variable)	Day-1-3 X (Independent variable)	Day-10 O <sub>2</sub> (Dependent variable)

**O<sub>1</sub>** : Administration of structured knowledge questionnaire on day 1.

**O<sub>2</sub>** : Administration of structured knowledge questionnaire on day 10.

**X** : Administration of Child- to- Child approach through Role-play in prevention of worm infestation.

A structured interview schedule was developed to assess the effectiveness of Child-to-Child approach through role play on prevention of worm infestation.

The following sources were used for the development of the questionnaire

1. Literature Review.
2. Consultation and discussion with nursing experts.
3. Personal experience and discussion with colleagues.

Related literature reviews like books, journals, articles, periodicals, published and unpublished research studies were reviewed and used for the development of tool.

Role play was prepared to impart the knowledge of worm infestation and its complication and prevention and maintenance of personal hygiene.

It consisted of the following content area:

- ❖ Small family having a school going child, parents were farmers.
- ❖ Children suffering from pain abdomen.
- ❖ They are coming to hospital.
- ❖ Examination of the child by doctor
- ❖ Giving information about worm infestation and health education about preventive measures and maintenance of personal hygiene.

#### IV. RESULTS AND OBSERVATION

Table 2 shows that aspect-wise pre-test mean knowledge about Worm Infestation among Primary School Children. Regarding Introduction of worm infestation mean knowledge was 37.59%, In aspect of Round worm 35.80%, Hook worm 42.33% , Thread worm 40.39% ,Tape worm 40.25%. The total mean knowledge score was 39.11% and SD was 2.881.

**Table 2: Aspect-wise pre-test mean knowledge about Worm Infestation among Primary School Children.**

N=100

Sl.No.	Aspects	Max. Scores	Mean	Mean %	N	Std. Deviation	Std. Error Mean
1	Introduction	6	3.03	37.59	100	1.185	0.118
2	Round Worms	6	2.81	35.80	100	1.398	0.140
3	Hook Worms	5	3.01	42.33	100	1.059	0.106
4	Thread Worms	5	2.88	40.39	100	1.274	0.127
5	Tape Worms	4	2.23	40.25	100	0.983	0.098
	<b>Total</b>	<b>26</b>	<b>13.96</b>	<b>39.11</b>	<b>100</b>	<b>2.881</b>	<b>0.288</b>

Table 3 shows that aspect-wise post-test mean knowledge about Worm Infestation among Primary School Children. Regarding Introduction of worm infestation mean knowledge was 62.41%, In aspect of Round worm 64.20% , Hook worm 57.67% , Thread worm 59.61% ,Tape worm 59.75%. The total mean knowledge score was 60.89% and SD was 2.950.

**Table 3: Aspect-wise post-test mean knowledge about Worm Infestation among Primary School Children.**

N=100

Sl.No.	Aspects	Max. Scores	Mean	Mean%	N	Std. Deviation
1	Introduction	6	5.03	62.41	100	0.846
2	Round Worms	6	5.04	64.20	100	0.852
3	Hook Worms	5	4.10	57.67	100	1.150
4	Thread Worms	5	4.25	59.61	100	0.796
5	Tape Worms	4	3.31	59.75	100	0.748
	Total	26	21.73	60.89	100	2.950

Table 4 reveals Pre-test, Post-test Mean Percentage of Practice on Prevention of Worm Infestation". Mean percentage of pre test was 37.34% and post test was 62.66. SD of pre test was 3.791 and post test was 2.785.

**Table 4: Pre-test, Post-test Mean Percentage of Practice on "Prevention of Worm Infestation"**

N=100

Practice	Max. Score	Mean	Mean %	N	Std. Deviation
Pre test Practice	19	9.57	37.34	100	3.791
Post test Practice	19	16.06	62.66	100	2.785

## V. DISCUSSION

Assessment of the over- all knowledge level of respondents:

In pre-test the 52% of children had moderate knowledge, 46% had inadequate knowledge and only 2% children had adequate knowledge. In post-test, 78% of children had adequate knowledge and 22% had moderate knowledge.

The findings of the study demonstrated significant increase in post test knowledge and practice scores in all the aspects. This confirms Child-to-Child approach is effective teaching strategy by using activity role play.

These findings of the study are consistent with the study of Mohapatra S.C. (1993) who conducted study in India on Child-to-Child program in survival and development of children. He selected 136 families for experimental group and 144 families for control group. Experimental group received information about injury, fever, diarrhoea and food hygiene through Child-to-Child approach.

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