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# A Pre Experimental Study to Evaluate the Effectiveness of Structured Teaching Programme on Information and Practice Concerning Deterrence of Worm Infestation Amongst Mothers Having Under Five Years Children in Designated Villages of Jhajjar, Haryana

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## Abstract

**Background:** Children are the ones who are very vital for deciding how the world is gonna be after some years. As per data of WHO given on 2 march 2020 soil transmitted worm infestation is the most common infestation that affects the poor and underprivileged communities worldwide. The main species that infect the people are roundworm, whipworm and hookworm. More than 24% of world population or 1.5 billion people are infected with soil transmitted worm infestation all over the world. More than 267 million preschool children, more than 568 million school age children living in the places where the parasites can easily spread and immediate action and involvements are required to control them. Now the target of WHO is to achieve and maintain elimination of worm infestation morbidity in preschool and school age children.

**Objectives:** The objectives of the study have drawn to fulfill the research reflecting on the effectiveness of structured teaching programme on information and practice concerning deterrence of worm infestation amongst mothers having under five years children in designated villages of Jhajjar, Haryana''

**Material and Method:** The study was conducted at Badli village of (Jhajjar) Haryana. 60 mothers of under five children were selected using non probability purposive sampling technique. Knowledge of the mothers were assessed through the structured questionnaire and after that structured teaching programme was delivered to samples and after 7 days post test was conducted to the assess gained knowledge of mothers regarding prevention of worm infestation among children.

**Result:** The mean value of pre-test knowledge score was 16.00 and post-test knowledge score was 21.53 having a significant difference with t- value for knowledge 9.613 significant at level of $p<0.05$. Post-test mean knowledge score was more than pre-test knowledge score with mean difference of 5.533. The mean value of pre-test practice score was 6.62 and post -test practice score was 9.52 having a significant difference with t-value 12.472 significant at level of $p<0.05$. Post -test mean practice score was more than pre-test mean practice score with mean difference of 2.900. Paired t- test was performed to find the difference between pre-test and post-test knowledge and practice score. Therefore, it was concluded that there was a significant difference in pre-test and post-test knowledge and practice score to assess the effectiveness of structured teaching programme in terms of gain in knowledge score among mothers of under five children.

**Keywords:** Mothers; Under-Five Years Children; Knowledge

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## Introduction

There is close relationship of worm infestation with factors such as destitution, ignorance, analphabetism, natural cleanliness etc. The most common individual who are at risk is a child because they engage most of their time in activities of play and give less importance to their personal cleanliness, because they do not have that much understanding sometimes to take care of themselves. When child get infected with worms and came home with that it can spread in whole family and whole family will have to face their repercussions. Most of the time people ignore this infestation but they do not understand its complications ,as this is so harmful that it can even attack on any organ in the body and can demage them. The reason of the spread of this infestation is not maintaining basic cleanliness such as not washing hands before making food and not cleaning the areas or surroundings where they live. Anaemia is the major problem that is suffered by Indian people because of these infestations [1-3].

Worm infestation is also called Helminthiasis, It is a parasitic disease that infect a particular area of body of human and animals with worms or helminths. Bilharzia and soil transmitted helminths are the most common infestations among the ignored tropical ailments [4]. The most important cause of pain in stomach among children is intestinal infestation caused by intestinal worms or helminths. When child have worms in his body or intestines specially whatever the child eat to maintain health all the nutrition or food will be eaten by the worms. Tapeworms, hookworms, roundworms, pinworms are the worms of intestine that once entered in body of child then child have to face severe consequences. With proper care and treatment these type of worms can be easily treated [5].

If somebody eat raw meat or disease-ridden meat of animals such as pig, fish or cow the person can very easily infected with these worms. There are some other causes that can cause intestinal worm infestations such as:

- Drinking Of Soiled Water
- Eating Dirty Soil
- Contact With Faeces
- Poor Hygiene

After coming in contact with soiled soil and faeces roundworms can easily transmitted. After consumption of soiled or infected substance the worms travels directly into the intestine and there they replicate and raise in the intestine. When they replicate they become higher in amount and larger in size and they will show their symptoms [6]. Roundworm infection is the most common type of worm infection in the world. It is rare in the U.S. Roundworm eggs live in soil that is contaminated by faeces. The eggs can enter in the body through mouth. The infection can then spread from person to person through infected faeces. Roundworms can stay in the small intestine for approximately 2 years. The worms are usually thick just like a pencil. They can grow to be about 13 inches long. They reproduce very quickly. Female roundworms may lay more than 2,00,000 eggs a day. These eggs leave the body through bowel movements. If a child swallows a roundworm egg, it passes down into the intestine and hatches into a baby worm (larva). Larvae can enter into the bloodstream after passing through intestinal wall. They enter into the throat after passing through the lungs. They are then swallowed again and return to the small intestine. There they grow into adult worms [7].

### Objectives

- To assess the pre-test level of knowledge and practice regarding prevention of worm infestation among mothers of under five years children.
- To develop and implement the structured teaching programme concerning prevention of worm infestation amongst mothers of under five years children.
- To assess the effectiveness of structured teaching programme on knowledge and practice regarding prevention of worm infestation among mothers of under five years children.
- To find out association between post-test knowledge regarding prevention of worm infestation among mothers of under five years children with selected demographic variable.
- To find out association between post-test practice regarding prevention of worm infestation among mothers of under five years children with selected demographic variable.

## Methodology

Pre-experimental one group pre-test and post-test design, where only the experimental group is selected as the study subject. A pre-test observation of the dependent variable (Knowledge) is made before implementation of the selected group. Structured teaching programme regarding prevention of worm infestation among mothers of under five years is administered and finally a post-test observation of dependent variables is carried out to assess the effectiveness of structured teaching programme on the group.

| Group | Pre test | Treatment | Post test |
|---|---|---|---|
| Experimental Group | 1 | X | 2 |

**Key: $O_1$ - Pre-Test, X- Structured teaching, $O_2$ - Post Test**
**Research Setting:** Badli village (Jhajjar) Haryana.
**Population of the Study:** mothers of under-five year's children who are living in selected villages of Jhajjar, Haryana.

**Sample Size:** The sample size for this present study was 60 mothers of under-five year's children.

**Samplng Technique**: Non-Probability Purposive Sampling Technique was used in this study**.**

**Inclusion Criteria**

- Mothers of under five years children.
- Mothers who all are present at the time of data collection.
- Mothers who can understand Hindi or English.

**Exclusion Criteria**

- The study excludes mothers who are having children aged more than five years.
- Mothers who does not want to participate in the study.

## Tools for data collection

The study has used primary data collection method. The data collection is done with the help of pre-structured and pre-tested questionnaire.

**Section A:** It consists of selected 10 demographic variables such as-

- Age
- Education
- Dietary pattern
- Number of children,
- Latrine facility
- Pet animal in house
- Type of water supply
- Type of drainage
- Previous source of information
- History of worm infestation in family.

**Section B:** It comprised of Self structured questionnaire to assess the Information regarding worm infestation which consist of 30 Information questions. There were 4 choices, one is allotted to each correct answer. 'Zero' was rewarded for wrong answer. Thus, there were 30 maximum obtained Information scores. The level of Information score was graded on percentage of Information score.

**Section C:** It comprises of 10 self-structured questionnaire to assess the practice regarding worm infestation.

## Pilot Study

Pilot study was conducted in Dariyapur village, Haryana to find out the practicability and feasibility of the study. The study was conducted in the month of March 2021 for a period of 7 days. Formal permission was obtained from the concerned authority and from the sarpanch of Dariyapur village of Jhajjar Haryana. 6 mothers of under five children were selected by non-probability purposive sampling technique, anonymity and confidentiality were maintained. The data was analysed using descriptive statistics.

## Data Collection Procedure

The investigator took permission from the college first and then took permission from the Sarpanch of the village in order to obtain co-operation to conduct pilot study successfully. The formal permission was obtained from the Dean of Faculty of Nursing, SGT University and from the Sarpanch of the village from Jhajjar Haryana. After the permission a list of mothers of under five children was collected from the anganwadi of two villages of Badli. I got the records of 65 mothers of under five years children, among them 60 mothers were ready to participate in the study. The investigator introduced herself to the mothers of under five children and establish rapport with them. Sample selected by investigator that fulfilled the inclusion criteria. The informed consent was obtained. Appropriate information was given to the subjects about the objectives of the study and adequate care was taken for protecting the subjects from potential risk including maintain confidentiality, security and identity. Then demographic variables were collected from the subjects. The pre-test was done to assess the Knowledge and practice amongst mothers of under five children concerning worm infestation through questionnaires. Then the structured teaching programme was administered. The post-test of study carried out after 7 days, using same tools as pre-test. Collected data was then tabulated and analysed.

## Result & Discussion

The data analysis depicts that mother who had poor Information is 6.7%, mothers who had moderate Information is 85% and mothers who had adequate Information is 8.3% about worm infestation. Mothers who perform poor practice are 21.7% of and 78.3% use good practice regarding prevention of worm infestation.

In this particular study pre-test score and post-test scores of Information is compared to measure the efficiency of planned teaching programme in terms of gaining Information scores of mothers having under five years children among designated villages of Jhajjar, Haryana. The mean score of Information of post-test (21.53) was significantly higher than the mean pre-test Information score (6.62) with a mean difference of 5.533. The mean score of post-test practice score (9.52) was significantly higher than the mean pre-test practice score (6.62) with a mean difference of 2.900. The study shows that post-test Information and practice score was significantly higher than pre-test Information and practice score.

Therefore, it was concluded that there was a significant difference in pre-test and post-test knowledge score. Hence the research hypothesis is accepted.

In the present study demographic variables such as age, education, dietary pattern, number of under five children, latrine facility, pet animal in the house, type of water supply, type of drainage, previous source of information regarding worm infestation, history of worm infestation in the family was not found statistically significant . The study was found that there was no association between Information, practice and sociodemographic variables.

| | | Frequency(f) | Percentage(%) |
|---|---|---|---|
| Age of mother | Below 25 yr. | 34 | 56.7% |
| | 26 – 30 yr. | 24 | 40.0% |
| | 31 – 35 yr. | 2 | 3.3% |
| | 36 yr. & above | 0 | 0.0% |
| Educational Status of mother | Illiterate | 4 | 6.7% |
| | Secondary | 18 | 30.0% |
| | Senior Secondary | 16 | 26.7% |
| | Graduate | 22 | 36.7% |
| Dietary pattern | Vegetarian | 60 | 100.0% |
| | Mix diet | 0 | 0.0% |
| Total number of children who are under five in the family | One | 53 | 88.3% |
| | Two | 7 | 11.7% |
| | Three | 0 | 0.0% |
| | Above three | 0 | 0.0% |
| Defecation | Inside facility | 60 | 100.0% |
| Facility | Defecation in outdoor | 0 | 0.0% |
| Pet in the house | Yes | 30 | 50.0% |
| | No | 30 | 50.0% |
| Type of water supply | Tap water | 30 | 50.0% |
| | Well water | 0 | 0.0% |
| | Tank water | 1 | 1.7% |
| | Govt. supply/submersible | 29 | 48.3% |
| Type of Drainage | Open | 1 | 1.7% |
| | Closed | 59 | 98.3% |
| Previous source of information regarding worm infestation | Family | 33 | 55.0% |
| | Friends | 3 | 5.0% |
| | Health personnel | 23 | 38.3% |
| | Mass Media | 1 | 1.7% |
| History of worm infestation in family | Yes | 18 | 30.0% |
| | No | 42 | 70.0% |

**Table 1:** Frequency distribution and percentage distribution of demographic variables concerning knowledge and practice about prevention of worm infestation amongst mothers of under five years children N= 60.

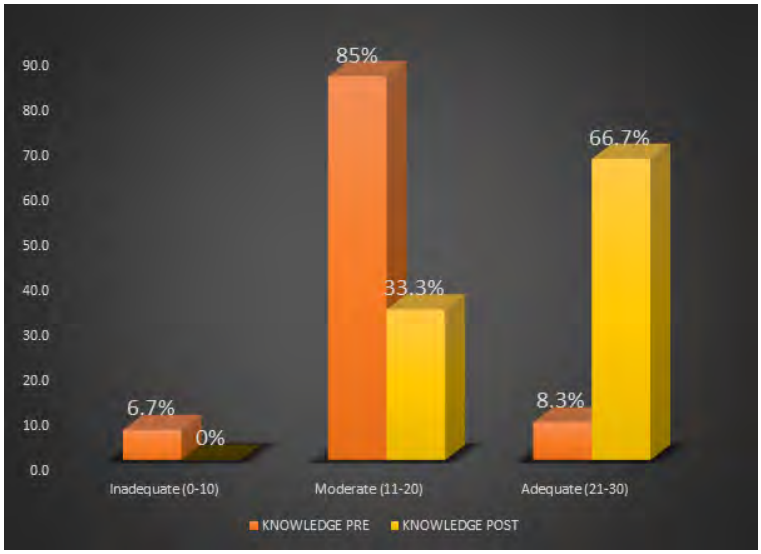


**Figure 1:** Bar diagram showing percentage distribution of comparison of Knowledge score of pre-test and post-test of mothers of under five years children.

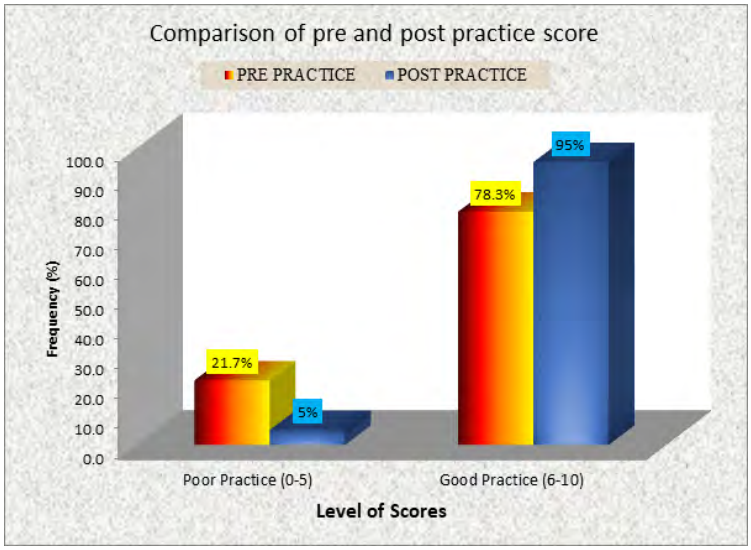


**Figure 2:** Bar diagram showing percentage distribution of comparison of practice score of pre-test and post-test of mothers of under five years children.

## Conclusion

The study concluded that there was a significant difference in Knowledge score before and after administering structured teaching programme concerning prevention of worm infestation amongst mothers having under five years children. The association of post-test scores of Knowledge with selected demographic variables was found statistically significant at less than 0.001 ($p<0.05$). It was proven that structured teaching programme was effective for mothers of under five children in selected villages of Jhajjar regarding prevention of worm infestation.

## Ethical Clearance

Taken from SGT Ethical committee

## Source of Funding:

Self

## Conflict of Interest:

Nil

## Recommendations:

1. Same study can be done on large sample for more accurate generalization.
2. Same study can be done to assess the attitude of mothers regarding prevention of worm infestation.
3. A Comparative study can be performed to assess the Information of mothers residing in urban and mothers residing in rural area.
4. This research study can be act as reference for other researchers.

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