International Journal of Science and Research (IJSR)
ISSN: 2319-7064
Impact Factor 2025: 7.089

A Study to Assess the Effectiveness of STP on Knowledge Regarding Diarrhea on Mother of Below 5-Year Age Children Selected Area of Haridwar, UK

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Abstract: ***Diarrheal is important factor of sickness and death among children of under five in developing countries, including India. Maternal knowledge regarding the prevention, treatment is essential for reducing its impact. This study focuses on how effective Structured Teaching Programme (STP) are improving mother's knowledge regarding diarrhea in children under five, particularly in Bahadrabad, Haridwar. It also highlights the impact of diarrheal diseases, factors affecting maternal knowledge, and role of health education in prevention and treatment. A study of national or international journals, government reports, and global health sources was conducted, focusing on diarrhea in under-five children, effectiveness of STP, and community based health education in India. The study employed pre-test/post-test design, revealing that pre-intervention, 60% mothers had moderate knowledge and 40% had inadequate knowledge regarding diarrhea (pre-test mean = 10.9, SD = 1.954). Following STP delivery, a statistically significant improvement in knowledge was observed (post-test mean = 20.533, SD = 4.516; paired t = 11.367; p < 0.05), thereby accepting the hypothesis of significant STP effectiveness. No significant link was found between pre-test knowledge and selected socio-demographic variables. STP is an effective, low-cost, and culturally appropriate intervention to increase maternal knowledge about diarrhea in rural and semi-urban communities in India.***

Keywords: Diarrheal disease, Under five Children, mother's knowledge, Structured teaching programme, community health education.

1. Introduction

Contaminated food is a primary cause of diarrhea which in turn greatly contributes to malnutrition and high mortality. Diarrhea is a wide spread disease which affects all our people including young children. Each year large number of cases of this health issue are reported and many deaths are a result. In developed countries diarrhea is a large public health issue.

An in the range of 1.8 billion cases of diarrhea report each year with 3 million of the which are in the 5 years and under group dying from it, 80% of which are in the under 2-year group. We see that which rural families with under five children report having experienced an episode of diarrhea and also of being dehydrated which varies greatly between Indian states. Also we note that there does not appear to be a clear relationship between the rate of diarrhea and which states are more or less prosperous.

In terms of what causes death in under five children diarrhea is a large factor. Most deaths are due to diarrhea which in turn is a result of dehydration. A child on average has 2 to 3 episodes of diarrhea each year. Diarrhea is the passage of loose, liquid or watery stools. WHO/UNICEF report that "acute diarrhea which is of sudden onset which usually lasts 3 to 7 days but may go up to 10-14 days" is what they term "gastroenteritis". It is brought about by a bowel infection. Also it is most often that the term gastroenteritis is used to describe acute diarrhea. Uttarakhand situated in the north of the Himalayan range of India reports high incidences of

childhood diarrhea which in turn is predominantly seen in rural and semi urban areas that do not have access to safe drinking water, sanitation and health care.

2. Aims and Objectives

Aim:

To check the effectiveness of structured teaching program on diarrhea related health issues in mothers of under five year of children.

Objectives:

1) To study pre-test knowledge of mothers on issues of diarrhea in their children under five.
2) To determine the effect of the Planned Teaching Program on mother's knowledge of diarrhea in their young children.
3) To identify any relationship between pre-test knowledge of mothers on diarrhea and chosen socio demographic variables.

3. Methodology

This present research project involves investigating the following aspects of its design: Approach, Study Design, Setting, Population and Samples, Sample Size and Sampling Technique, Instruments development, Pilot Study and Data Collection Process, and Plan for Data Analysis.

Research approach

To achieve the objectives stated above, this research project will use a quantitative approach. Therefore, this research project will rely upon quantitative data to support its conclusions.

Research design

The research Design employed was the Quasi – Experimental Design to evaluate the effectiveness of the Structured Teaching Programme for the mothers of under five year of children regarding their knowledge of diarrhea.

Variables:

- **Independent variable:** Structured intervention program for Diarrhea.
- **Dependent variable:** The variables that were dependent in our study were Knowledge.

Sample size and sampling techniques: The present study included 30 mothers of children below five years. We used simple random sampling technique for selection of study participants.

Sample selection criteria

- Mothers who are having below five year children.
- Mother which live in Bahadrabad village.
- Mothers that speak or understand either Hindi and English.
- Mothers that are willing to take part in the study.

Exclusion criteria

- Mothers of children less than five years which we choose for our pilot study.
- Mothers that do not live in Bahadrabad village.
- Mothers that do not speak or understand Hindi and English
- Mothers with children over five years.

4. Result

A total of 30 samples were chosen for our study which we first put through a pre-test via multiple choice questionnaire. We conducted the pre-test after which we ran a 45-minute Structured Teaching Program which included the use of flashcards, charts and handouts. After a week we ran a post-test also via the same multiple choice questionnaire on the same group of mothers that we had presented the STP to in the pre-test.

5. Major Findings of the Study

Findings of demographic variables

- **Age -** Most of mother 50 % were 22-25 years of age,
- **Type of family -** Majority of mother 86.67 % from nuclear family,
- **Occupation of mother -** Most of mother 63.33 % were housewife.
- **Education of the mother -** Most of the mother 56.67 % were completed their secondary education.
- **Income of family per month -** Majority of mother's 33.33 % family income more than 15000,
- **Type of house -** Majority of mother 90 % were having concrete house,
- **Sources of water -** Majority of mother 90 % were used tap water,
- **Number of children -** Majority of mother 50 % were two children,
- **Method for solid waste disposal-** Majority of mother 46.67 % were disposed solid waste in open field,
- **Method of human excreta disposal-** Most of mother 93.33 % were used sanitary latrine form human excreta disposal.

6. Findings basis of Objectives and Hypothesis

Table-1: Show the distribution in terms of percentage of mothers of five and under which reported to have various levels of knowledge on diarrhea. In the pre-test we found 18 out of 30 mothers (60%) had moderate knowledge and 12 (40%) had inadequate knowledge. Post intervention we saw improvement 23 (out of 30) mothers (76.67%) reported adequate knowledge, 6 (23.33%) had moderate knowledge and only 1 (3.33%) had inadequate knowledge (Figure-1).

Table 1: Similarity between pre-test and post-test level of knowledge regarding management of diarrhea of the mothers of below five year children.

Knowledge level	Obtained Scores	Pre – Test Knowledge Scores		Post – Test Knowledge Scores	
		N	%	N	%
Adequate	21-30	00	00 %	23	76.67 %
Moderate	11-20	18	60 %	06	23.33 %
Inadequate	1-10	12	40 %	01	3.33 %

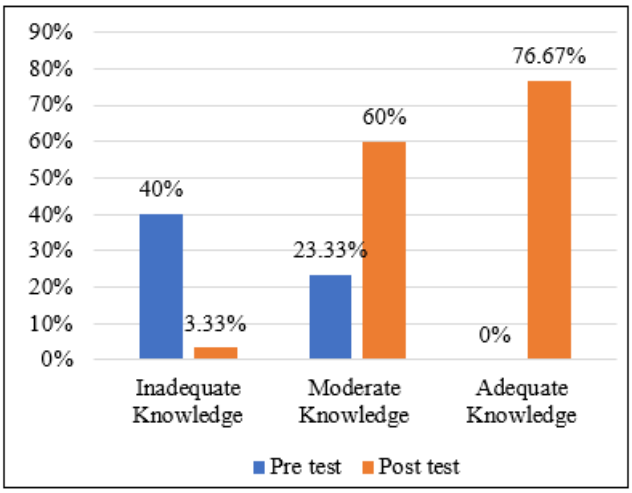

Figure 1: Percentage (%) of Knowlege of under five chilren mothers related to diarrhea

(Table–2) In this study we used paired 't' test to compare pre-test and post-test knowledge of mothers which reported a 't' test value of 11.367 for overall score and p value of 5.033 which is significant at $P < 0.05$ level (Figure-2).

Table 2: Mean and standard deviation of knowledge regarding management of diarrhea among the mothers of under five children.

Knowledge level	Mean ± SD	paired 't' test value	p-value
Pre-test	10.9 ± 1.954	11.1367	5.433
Post-test	20.533 ± 4.516		

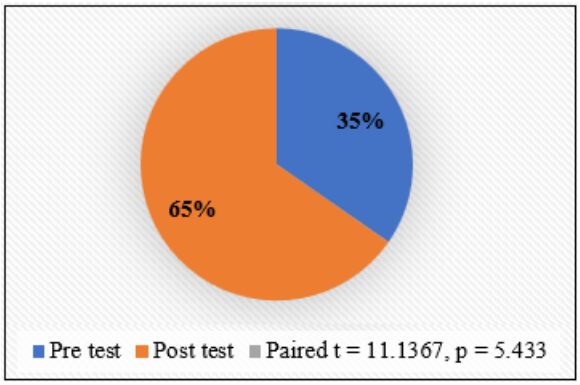

Figure 2: Mean and standard deviation of knowledge of treatment of diarrhoea

In the present study we report (Figure-3) that which we found - age of mother had a p value of .5122, types of family had a p value of .5106, occupation status had a p value of .2761, educational status had a p value of .5331, family income had a p value of .0622, types of house had a p value of .3203, sources of water had a p value of .3203, number of children had a p value of .9556, method of solid waste disposal had a p value of .7823, method of human excreta disposal had a p value of .6854. We also report that there was no significant association between pre-test knowledge score and the mentioned demographic variables.

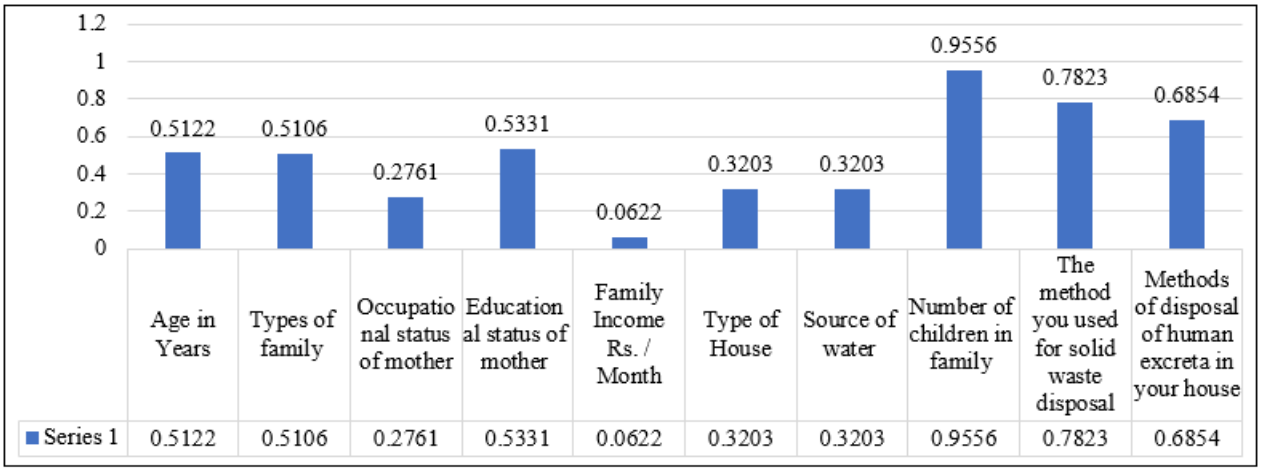

Figure 3: Association between pre-test knowledge scores

7. Conclusion

In our pre-test we found that 40% of mothers of children below five years of age had insufficient knowledge, 60% had moderate knowledge and none had sufficient knowledge. Post intervention we saw that of 3.33% mothers had insufficient knowledge, 23.33% had moderate knowledge, and 76.67% had sufficient knowledge. We ran a 't' test which we did between pre and post knowledge scores which showed true gain in knowledge. We found a statistically $P<0.05$ significant improvements in knowledge in relation to the use of the structured teaching program. Thus the H1 hypothesis was accepted. We concluded that the structured teaching program is an effective method to improve mother's

knowledge of issues related to diarrhea in children of under five years of age.

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