

" A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding Prevention and Management of Diarrhea Among Mothers of Children 0–5 Years in Selected Urban Area of Bhilai (C.G)."

'The greatest wealth of a nation is the health of its children '

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ABSTRACT

Diarrhea remains a major public health concern affecting children below five years, particularly in developing countries like India. Despite the availability of simple, cost-effective treatments such as Oral Rehydration Solution (ORS) and zinc supplementation, diarrhea morbidity and mortality continue to be high due to gaps in maternal knowledge, poor hygiene practices, consumption of contaminated water, and delayed initiation of home-based management. Mothers are the primary caregivers for young children; hence their knowledge plays a vital role in preventing diarrhea episodes and recognizing signs of dehydration. Strengthening maternal awareness through structured health education is an effective strategy for reducing diarrhea complications and promoting child survival.

Index Terms

Assess ,Effectiveness, Planned Teaching Programme , Knowledge Regarding Prevention and Management of Diarrhea ,Mothers of Children 0–5 Years.

I. INTRODUCTION:

The health and well-being of children below the age of five years remain a cornerstone of public health efforts globally and in India. Among the numerous health issues affecting this vulnerable age group, diarrhea diseases continue to be one of the leading causes of morbidity and mortality. Diarrhea, characterized by frequent passage of loose or watery stools, is not only a preventable condition but also manageable through timely and appropriate interventions. Despite the availability of low-cost, effective treatments such as Oral Rehydration Solution (ORS)

and zinc supplementation, millions of children under five suffer from repeated episodes of diarrhea, particularly in low- and middle-income countries.

India bears a substantial burden of under-five diarrhea morbidity and mortality, with urban areas such as Bhilai and Durg in Chhattisgarh being no exception. In these settings, factors such as overcrowding, poor sanitation, contaminated water sources, inadequate maternal knowledge, and limited access to health services contribute significantly to the spread and severity of diarrhea diseases. Mothers, being the primary caregivers of young children, play a pivotal role in the early identification, management, and prevention of diarrhea. However, many mothers lack adequate knowledge regarding appropriate home-based care, feeding practices during diarrhea episodes, and preventive hygiene measures, which often leads to complications including dehydration and malnutrition. Given this context, educational interventions such as planned teaching programmes are increasingly being recognized as an effective strategy to enhance maternal knowledge and thereby reduce childhood diarrhoeal episodes.

II. PROBLEMSTATEMENT:

A Study To Assess The Effectiveness Of Planned Teaching Programe On Knowledge Regarding Prevention And Management Of Diarrhea Among Mother Of Children 0- 5 Year In Selected Urban Area at Bhilai (C.G)

III. OBJECTIVES:

1. To assess the pre-test knowledge level of mothers of children aged 0–5 years regarding prevention and management of diarrhea.
2. To administer a planned teaching programme on prevention and management of diarrhea among mothers of children aged 0–5 years.
3. To assess the post-test knowledge level of mothers of children aged 0–5 years regarding prevention and management of diarrhea after implementation of the planned teaching programme.
4. To compare the pre-test and post-test knowledge scores of mothers regarding prevention and management of diarrhea.
5. To find the association between the pre-test knowledge scores of mothers and selected socio-demographic variables such as age, education, occupation, family income, number of children, and previous knowledge regarding diarrhea

IV. HYPOTHESES:

H₀ -There will be no a significant difference between the pre-test and post-test knowledge scores of mothers of children aged 0–5 years regarding prevention and management of diarrhoea after the administration of a planned teaching programme at $p < 0.05$ level of significance.

H₁:There will be a significant difference between the pre-test and post-test knowledge scores of mothers of children aged 0–5 years regarding prevention and management of diarrhea after the administration of a planned teaching programme at $p < 0.05$ level of significance.

H₂:There will be a significant association between the pre-test knowledge scores of mothers and selected socio-demographic variables such as age, educational qualification, occupation, monthly family income, number of children, and previous knowledge about diarrhea at $p < 0.05$ level of significance.

V. MATERIALS AND METHODS:

A pre-experimental research design was adopted to conduct the study. The target population consisted of mothers of children aged 0–5 years residing in selected urban areas of Bhilai, Chhattisgarh. A non-probability purposive sampling technique was used to select the samples based on their availability and willingness to participate in the study.

The accessible population, which formed the study sample, comprised 60 mothers of children aged 0–5 years from the selected urban areas of Bhilai. A structured knowledge questionnaire was developed and utilized to assess the effectiveness of a planned teaching programme on knowledge regarding diarrhea, including its causes, prevention, and management among the mothers.

The Tool Used for the Study

The tool used for the study consisted of three sections –

Section A – Deals with the socio-demographic variables such as age, educational qualification, occupation, monthly family income, type of family, number of children, area of residence, religion, source of drinking water, and marital status.

Section B – Deals with a self-structured questionnaire to assess knowledge regarding diarrhea, its causes, and prevention among mothers of children aged 0–5 years.

Section C – Deals with a self-structured questionnaire to assess knowledge regarding management of diarrhea, including ORS preparation and home care practices.

Expert opinion and content validity of the tool were established by three experts from **Child Health Nursing** and one statistician. Reliability of the self-structured questionnaire to assess the effectiveness of the planned teaching programme on knowledge regarding prevention and management of diarrhea among mothers of children aged 0–5 years was established using Karl Pearson's correlation coefficient formula, and the 'r' value was found to be **0.86**. The tool was found to be valid and reliable.

The data for the main study were collected from two Urban Primary Health Centres (UPHC), namely **UPHC Kohka Bhilai** and **UPHC Junwani Bhilai, Chhattisgarh**, on **04/11/2025**.

The technique for data collection was a self-structured knowledge questionnaire. Formal permission was obtained from the **Medical Officer of the respective UPHCs** prior to data collection, and informed consent was taken from the participants.

VI METHOD OF DATA ANALYSIS

1. The data obtained from the study were analysed and interpreted in terms of the objectives. Both descriptive and inferential statistics were used for data analysis. Socio-demographic data were analysed using frequency and percentage.
2. Analysis of socio-demographic variables was done using frequency and percentage distribution.
3. Paired t-test analysis was used to determine the effectiveness of the planned teaching programme among mothers of children aged 0–5 years.
4. Chi-square test was used to find out the association between pre-test knowledge scores and selected socio-demographic variables among mothers.

VII MAJOR FINDINGS OF THE STUDY

There is an association between the pre-test knowledge level regarding prevention and management of diarrhoea among mothers of children aged 0–5 years with selected socio-demographic variables such as age, educational qualification, occupation, type of family, number of children, monthly family income, area of residence, religion, source of drinking water, and marital status, using a non-parametric χ^2 test.

On applying the chi-square test, demographic variables such as **educational qualification** and **monthly family income** were found to be significantly associated with the pre-test knowledge level regarding prevention and management of diarrhea among mothers. The χ^2 value of educational qualification was **18.74**, which is greater than the table value (12.59) at $p = 0.05$ level of significance for 6 degrees of freedom. Similarly, the χ^2 value of monthly family income was **14.62**, which is greater than the table value (12.59) at $p = 0.05$ level of significance for 6 degrees of freedom.

Hence, H_2 is accepted, indicating that there is a significant association between the pre-test knowledge level regarding prevention and management of diarrhoea among mothers and selected socio-demographic variables such as **educational qualification and monthly family income**.

Association between the pre-test knowledge level regarding prevention and management of diarrhea among mothers and other selected socio-demographic variables such as age ($\chi^2 = 7.82$, $p > 0.05$), occupation ($\chi^2 = 8.54$, $p > 0.05$), type of family ($\chi^2 = 6.91$, $p > 0.05$), number of children ($\chi^2 = 5.33$, $p > 0.05$), area of residence ($\chi^2 = 3.11$, $p > 0.05$), religion ($\chi^2 = 7.45$, $p > 0.05$), source of drinking water ($\chi^2 = 9.32$, $p > 0.05$), and marital status ($\chi^2 = 4.66$, $p > 0.05$) were found to be statistically not significant.

Hence, H_0 is accepted, indicating that there is no significant association between these socio-demographic variables and the pre-test knowledge level of mothers.

The findings also revealed that the planned teaching programme was highly effective in improving the knowledge of mothers, as evidenced by the increase in post-test scores. The mean post-test score (29.88) was significantly higher than the pre-test mean score (18.45), with a mean difference of **11.43**. The calculated paired 't' value (**22.67**) was greater than the table value (**2.00**) at the 0.05 level of significance, indicating a statistically significant difference between pre-test and post-test knowledge scores.

VIII RECOMMENDATIONS

1. Longitudinal studies may be conducted to assess long-term retention of knowledge.
2. Video-assisted or mobile-based teaching programmes can be developed for wider reach.
3. Comparative studies may be done between urban and rural mothers.
4. Interventional studies can assess behavior change and actual diarrhea prevention practices.
5. Health workers may be trained to deliver such structured educational interventions regularly.
6. Community-based awareness drives should be integrated into national child health programmes

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