

EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE OF HOME CAREMANAGEMENT OF DIARRHOEA AMONG MOTHERS OF UNDER FIVE CHILDRENNicy Thomas (Sr. Jyothis)^{1*}, Sr. Teena Kavungal¹ and Sunu K. Rajan²¹Professor, Department of Child Health Nursing, Kerala University of Health Sciences, HolyCross College of Nursing, Kottiyam, Kollam, Kerala, India.²Associate Professor, Department of Child Health Nursing, Kerala University of Health Sciences, Holy Cross College of Nursing, Kottiyam, Kollam, Kerala, India.***Corresponding Author: Nicy Thomas (Sr. Jyothis)**

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Article Received on 08/10/2021

Article Revised on 28/10/2021

Article Accepted on 18/11/2021

ABSTRACT

The development of a country can be determined by estimating the health status of children in that country. Their nature and solitude are the responsibility of the nation. Child health is at the core of India's development agenda. According to WHO, Passage of three or more than three loose of stool or watery stools per day or stools more frequent than normal for a child is considered as diarrhoea. **Aims and Objectives:** To assess the pretest knowledge on home care management of diarrhoea among mothers of under five children, to evaluate the effectiveness of structured teaching programme on knowledge of home care management of diarrhoea among mothers of under five children, to find out association between pre-test knowledge scores on home care management of diarrhoea among mothers of under five children with selected socio demographic variables. **Methods and materials:** The present study is a quantitative study conducted to assess the effectiveness This study has been carried out in the selected anganwadies at, Kollam District. And study duration was one month January 2021, with structured teaching programme on knowledge of home care management of diarrhoea among mothers of under five children. The study was well designed to with an informed consent form, method of data collection, parameters to be collected and steps to be followed in reviewing the collected data. Non probability purposive sampling technique was used to select 60 mothers of under five children for the study. The tools used for data collection were demographic data, structured knowledge questionnaire. All the study plan was submitted to the Institutional Ethics Committee (IEC) for approval of the study. **Conclusion:** The study showed that there was improvement in the knowledge of home care management of diarrhoea among mothers of under five children after conducting structured teaching programme and thus structured teaching programme was statistically significant at 0.01 level ($t = 21.09$, $p < 0.00$). There was no significant association found between mean pretest knowledge score with socio demographic variables. Hence the study suggested that structured teaching programme was effective in improving the knowledge of mothers of under five children regarding home care management of diarrhoea.

KEYWORDS: Home care management of diarrhoea; mothers of under five children; structured teaching programme.**INTRODUCTION**

Children are the major consumers of health care. In India about 35% of total population is children below 5 years. Good health of children has been given prime importance in all countries. Karl Meninger says "What is done to the children, they will do to the society, all citizens – All health workers". Everyone, even the children have responsibility to involve in health services and act as change agents for health promotion".^[1]

The nation's children are its supreme asset. Their nature and solitude are the responsibility of the nation.^[2] Child health is at the core of India's development agenda.^[3] According to WHO, Passage of three or more than three

loose of stool or watery stools per day or stools more frequent than normal for a child is considered as diarrhoea.^[4] Diarrhoeal disease remains the second leading cause of death among under five children globally.^[5]

Diarrhoea is one of the top five causes of death among infants and under five children in India. Oral rehydration therapy (ORT) with oral rehydration salt (ORS) solution remains the cornerstone of appropriate case management of diarrhoeal dehydration and is considered the single most effective strategy to prevent diarrhoeal deaths in children.^[6] Diarrhoeal disease is an important public health problem among under five children in developing

countries.

Childhood diarrhoea is a significant public health problem in India. Infants aged 6–24 months are at the highest risk of diarrhoea. Rotavirus and diarrhoeagenic *Escherichia Coli* (*E.coli*) are the most common organisms identified. Exclusive breastfeeding, hand washing and point-of use water treatment are effective strategies for prevention of diarrhoea; rotavirus vaccines are efficacious to prevent rotavirus specific diarrhoea. ORS and Zinc are the mainstay of management during an episode of childhood diarrhoea.^[7]

Background of the Study

Diarrhoea remains the second leading cause of death among children under five globally. It is a global public health problem that affects both developing and developed countries with major consequences for human health. It kills more young children than AIDS. It can be prevented by simple home management using oral rehydration therapy. Mothers play a central role in its management and prevention. So, the main objective of this study is to assess mothers' knowledge on home-based management of diarrhoeal disease among under five children.

Diarrhoeal disease is one of the commonest illnesses that has the greatest negative impact on the growth and development of infants and young children.^[8]

Contaminated weaning food, inappropriate feeding practice, lack of clean water, poor hand washing, limited sanitary disposal of waste, poor housing conditions, and lack of access to adequate and affordable health care are aggravated factors of the under five diarrhoeal diseases.^[9]

Diarrhoeal diseases among under five children can be tackled in at both primary and secondary prevention levels. The former about the improvement of sanitation and water quality but the latter is about early recognition of dehydration due to diarrhoea and prompt oral rehydration using ORS (oral rehydration solution) or appropriate home available fluids. Oral rehydration solution has been proven to be effective in preventing diarrhoea mortality in the community while varying degree of evidence favours the use of home available fluid.^[10]

Optimal infant & young child feeding practices could prevent more than 10% of deaths from diarrhoea. On the other hand, better hygiene practices, particularly hand washing with soap & the safe disposal of excreta can reduce the incidence of diarrhoea by 35%.^[11]

Studies revealed that rotavirus is the most frequent etiological agent of diarrhoea. Of the bacterial infectious agents, *E. coli* are the major pathogens afflicting children aged less than five years. Oral rehydration therapy with oral rehydration salt solutions is the appropriate

management of diarrhoeal dehydration and is the single most effective strategy in preventing diarrhoeal deaths in children. ORS has been considered as inexpensive and can be easily administered at home by the mothers as soon as a diarrhoea episode begins.^[11]

A cross-sectional study was conducted in Kashan, Iran, 2017, to assess the knowledge of mothers in management of diarrhoea in under five children. Cluster sampling technique was used to select 430 mothers who had at least one child aged below five years old. Some demographic characteristics such as age, number of children, education of the mother and her spouse and the source of knowledge also were recorded. Most of the mothers were 25-30 years old 43.8%. Slightly more than half 55.6% had just one child. The health centre, educational programs and the personal reading were the main sources of the knowledge about the treatment 43.7%. 28.8% of the mothers had a good knowledge in diarrhoea diagnosis and its treatment, while the 46.5% had medium and 24.7% suffered low knowledge.^[12]

A cross sectional study was carried out from June to August 2015, to assess knowledge and practice of mothers of under five children regarding management of diarrhoea in urban field practice area of MRMC, Kalaburagi, Karnataka, India. House to house survey was conducted to select 204 mothers. Nearly two thirds 62.74% of the mothers were literate and majority of them were in the age group of 21 – 25 years. More than 50% of the participants lacked adequate knowledge regarding danger signs, spread and prevention. Poor dietary practices were prevalent among 50.49% mothers. Only 50.49% mothers practiced exclusive breast feeding. Nearly one fifth of the mothers practiced bottle feeding, among them only 26.82% practiced hygienic measures. Majority of mothers 55.88% dispose child's faeces in open air. Only 43.62% mothers demonstrated proper technique of hand washing. 86.27% participants knew about ORS, among them more than half had adequate knowledge regarding preparation and administration. Only 26.96% mothers dewormed their child regularly.^[13]

Need and significance of the study

Children are an asset to the family, society and the community in which they live. Diarrhoea is a leading killer disease among children, approximately 8 % of all deaths among under five children worldwide. This shows that 1,300 young children are dying each day, or about 4,80,000 children a year, despite the availability of simple effective treatment. Diarrhoeal diseases rank among the "Top three" cause of death in paediatric population of the developing world. An individual child suffers 10 to 15 episodes of diarrhoea in the first 5 years of life.^[14]

A pre-experimental one group pretest posttest was conducted in 2018, in selected wards of Arattupuzha Panchayat, to assess the effectiveness of health education programme on knowledge and practice on home care management of diarrhoea among 50 mothers of under

five children. The study results found that majority of mothers had poor knowledge in the areas of signs and symptoms 52% and preparation of ORS 44%. The mean posttest knowledge score 26.1 is significantly higher than the mean pretest score 13.36, shows the effectiveness of the educational programme. Only 6% had good practice on ORS preparation and the mean posttest practice score 8.98 is significantly higher than the pretest practice score 5.06.^[15]

A descriptive study was conducted in Anna Nagar, Chennai in 2016, to assess the knowledge of mothers of under five children regarding management of dehydration. The purposive sampling technique is used to select 30 mothers of under five children. Results shows 11(37%) had adequate knowledge, 16(53.3%) had moderate adequate knowledge and 3(10%) had inadequate knowledge on management of dehydration among the mothers of under five children.^[16]

A community-based cross-sectional study was conducted from October 2017 in Dale district, Southern Ethiopia, to assess the prevalence of diarrhoeal diseases and associated factors among under-five children. A simple random sampling technique was used to select 546 samples. A face-to-face interview using a structured questionnaire and observation checklist was used to collect data. The prevalence of diarrhoea among children under the age of 5 years was 13.6%, educational level 3.97%, nutritional status 6.41%, hand washing method 3.10%, hand washing after latrine 2.73%, refuse disposal method 3.23%, and housing floor material 3.22% were significantly associated with the occurrence of childhood diarrhoeal diseases.^[17]

A community based cross sectional study was conducted between June and October 2015, in Nepal, to assess the prevalence of diarrhoea among under five children. Children of age group 6 to 11 months and 12 to 23 months are at higher risk for illness duration due to diarrhoea, compared to older children. The prevalence of diarrhoea in this age group was found to be 48 %. Out of which, 77.22 % of diarrhoeal cases who sought care in the public sector were treated at community level by community-based health workers. Factors related to the under-five children (Age, gender and nutritional status), factors related to mother (hand-washing behaviour and education of mothers) and eco-social factors (water and sanitation, healthcare services, cultural and societal values and income of the household) are the identified determinants for diarrhoea in under-five children of Nepal.^[18]

A cross-sectional survey, conducted in the year 2019, in the Pediatric department of a peripheral hospital in Pune, Maharashtra, to assess the mother's knowledge, attitude and practice of acute diarrhoeal disease and use of oral rehydration therapy among mothers of under five children. 305 mothers were selected by survey method, their knowledge about diarrhoea was good with 77.1%

knowing correct definition, and most mothers knowing correctly about its mode of transmission, the positive role of good hygiene & sanitation, breast feeding and oral rehydration therapy (ORT) in prevention and management of acute diarrhoea. However, their attitude and practice were found lacking, with higher rate of bottle feeding 59.3% and lesser use of standard 46.3% as well as home based 69.9% ORT measures.^[19]

A quantitative approach with non - experimental survey design was used in the year 2018 in selected hospital, Wardha, Maharashtra, to assess the knowledge of mothers of under five children regarding prevention and management of diarrhoea among mothers of under five children. Non- probability Convenient sampling technique was used to select the 100 samples. Study showed that 16% Mother had poor knowledge, 74% Mother had average knowledge and 10% Mother had good knowledge.^[20]

A non-experimental research survey approach and descriptive research design was adopted in the year 2019, To assess the knowledge of mothers of under five children about home available fluid in the management of diarrhoea among mothers of under five children in ICDS Centre. Purposive sampling technique was used to select 100 mothers from ICDS Centre West Bengal. Result showed that majority (45%) of the respondents had good knowledge and few also had (28%) very good knowledge. In stated practice approximately 48% of respondents were average with another 18% showing very good practices. Remaining respondents (34%) practices were good.^[21]

Statement of the Problem

A study to assess the effectiveness of structured teaching programme on knowledge of home care management of diarrhoea among mothers of under five children in selected anganwadies, at Kollam district.

OBJECTIVES OF THE STUDY

1. To assess the pretest knowledge on home care management of diarrhoea among mothers of under five children.
2. To evaluate the effectiveness of structured teaching programme on knowledge of home care management of diarrhoea among mothers of under five children.
3. To find out association between pretest knowledge scores on home care management of diarrhoea among mothers of under five children with selected socio demographic variables.

HYPOTHESES

Hypothesis will be tested at 0.05 level of significance.

H1: There will be significant difference in the mean pretest and posttest knowledge scores on home care management of diarrhoea after structured teaching programme among mothers of under five children

H2: There will be significant association of pretest knowledge scores regarding home care management of

diarrhoea among mothers of under five children with selected socio demographic variables.

METHODOLOGY

Research Approach	: Quantitative approach
Research Design	: Pre experimental one group pretest posttest research design
Setting	: Selected anganwadies at Kottiyam, Kollam District
Population	: Mothers of under five children.
Sampling Technique	: Non probability – purposive sampling technique
Sample Size	: 60 mothers of under five children

VARIABLES

Dependent variable	: Knowledge of mothers of under five children.
Independent variable	: Structured teaching programme on knowledge of home care management of diarrhoea.

DATA COLLECTION METHOD

Tools used were

1. Socio demographic Performa.
2. Structured self administered knowledge questionnaire regarding home care management of diarrhoea.

technique.

3. Pretest was conducted and structured teaching programme regarding home care management of diarrhoea was given and then posttest was done after a week.

METHOD OF DATA COLLECTION

1. Written permission was obtained from the parents.
2. The sample 60 was selected based on sampling criteria using Non probability purposive sampling

DATA ANALYSIS

1. Descriptive: Frequency, percentage, means and standard deviation were used
2. Inferential: Chi- square, paired t test were used for the analysis and interpretation of data.

RESULT AND DISCUSSION

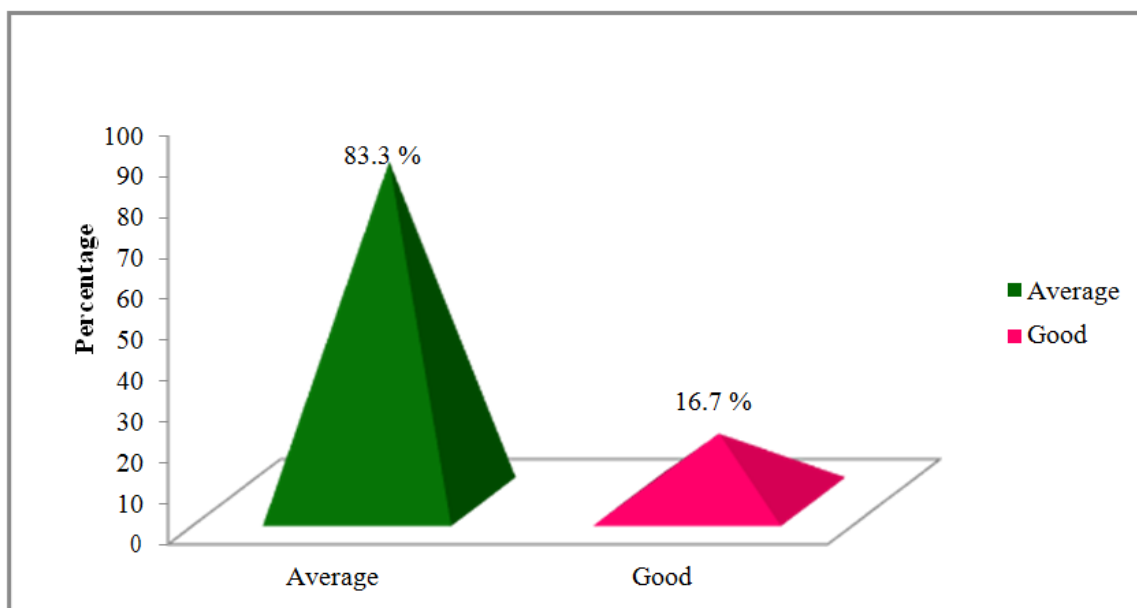


Figure 1: Cone diagram showing percentage distribution of the sample according to pretest score of knowledge.

The figure shows that before conducting structured teaching programme more than half of the sample had average 83.3%, and 16.7% of the sample had good knowledge about home care management of diarrhoea.

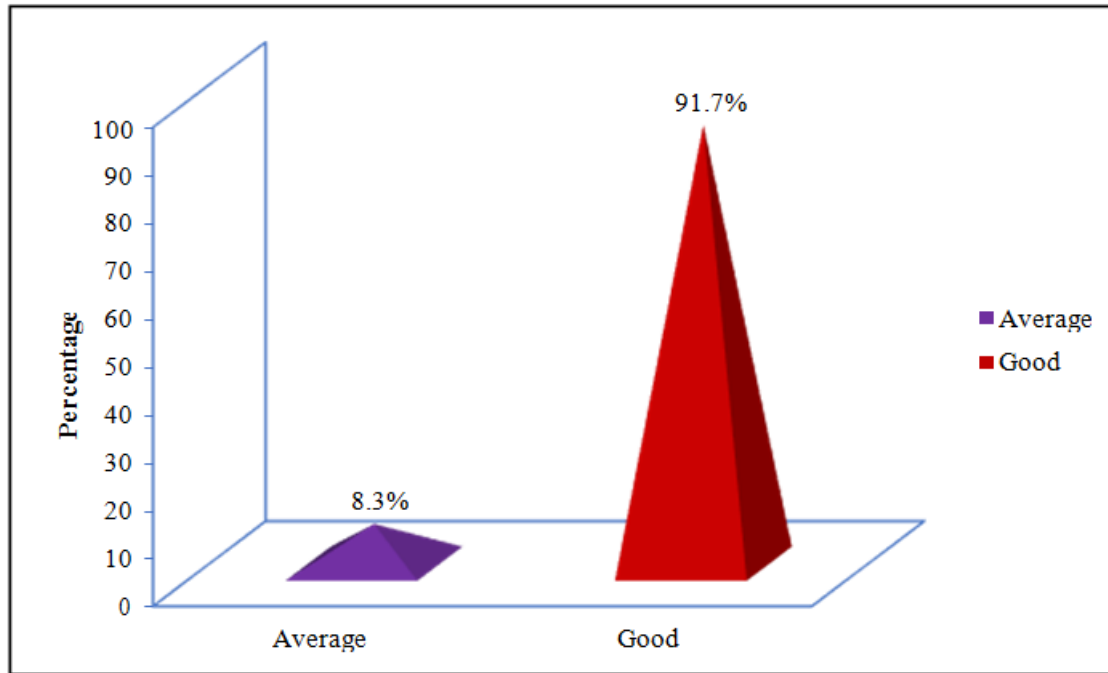


Figure 2: Pyramid diagram showing percentage distribution of the sample according to posttest score of knowledge.

The figure 2 shows that 91.7% of the sample had good knowledge and 8.3% of the sample had average knowledge after conducting structured teaching programme about home care management of diarrhoea.

Table 1: Effectiveness structured teaching programme on knowledge on home care management of diarrhoea among mothers of under five children.

Knowledge	Mean	Standard Deviation	N	Mean difference	Paired 't' value	p value
Pretest	17.83	2.987	60	8.0	21.09	0.01
Posttest	25.90	3.323	60	67	3*	

*Significant at 0.01 level

- NURSING PRACTICE**
- ❖ The extended and expanded role of the professional nurse emphasizes the activities which promote health and preventive behavior among people.
 - ❖ The structured teaching programme developed in the study can be used by nurses working in wards, outpatient department and in the community settings for giving health education to mothers of under five children, which would help them to take steps to manage diarrhoea at home and adopt preventive measures
 - ❖ Nurses working in community could collaborate with the anganwadi workers to improve the knowledge of mothers on prevention and home care management of diarrhoea and able to provide improved child care.

NURSING EDUCATION

- ❖ The nursing students should be encouraged to teach the home care management of diarrhoea among mothers of under five children.
- ❖ The nurse graduates can prepare to meet the continuum of care of their patients in a cost-effective manner with a focus on preventive and health promotive services.

- ❖ Prepare the students to practice the gained knowledge during their clinical practice.

NURSING ADMINISTRATION

- ❖ The present study findings can help the nurse administrators to conduct in various health care settings in order to plan health education programme on home care management of diarrhoea.
- ❖ The nurse administrator can take initiative to provide facilities to conduct research such educational programs in the hospital as well as in the community.
- ❖ The nurse administrator can collaborate with the other health care providers to organize programs on diarrhoea.

NURSING RESEARCH

- ❖ The study helps the nurse researcher to develop insight into the development of teaching module and material for mothers with reference to home care management of diarrhoea for improving their knowledge and quality of home care.
- ❖ One of the aims of nursing research is to contribute the knowledge to the mothers, to improve the quality

of living. This is possible only if nurses take initiative to conduct the further research studies.

- ❖ To make the nursing care evidence based, nurses should be interested and motivated to conduct many research studies on such topics.

LIMITATIONS OF THE STUDY

- ❖ The study was limited to selected anganwadies at Kollam District.
- ❖ The study was limited to mothers of under five children.
- ❖ Study was conducted during the period of COVID 19, so there were some difficulties to get the samples.
- ❖ Duration of data collection was limited to 2 weeks only.
- ❖ The sample size of the study was limited to 60 Mothers of under five children due to COVID 19.

RECOMMENDATIONS

- ❖ The study can be replicated on a large sample for better generalization
- ❖ Similar study can be conducted in different setting
- ❖ Similar study can be done to assess the knowledge of mothers of under five children on home care management of diarrhoea.
- ❖ Descriptive study can be conducted to find out the effectiveness of other innovative teaching measures to improve the knowledge.

CONCLUSION

The present study on structured teaching programme on knowledge of home care management of diarrhoea was done to improve the knowledge of mothers of under five children. The study was conducted in selected anganwadies at Kottiyam, Kollam District. A non-probability purposive sampling technique was used to conduct the study. The result of the study shows that mothers of under five children gained good knowledge regarding home care management of diarrhoea. The study findings emphasized the effectiveness of structured teaching programme in improving the knowledge of mothers of under five children.

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