"A Study to Assess the Effectiveness of Structured Teaching Programme on Oral Rehydration Therapy Among Parents of Toddlers in Selected Rural Area at Bijapur District, Karnataka"

Mr. Aravind Hattikal*, Mr. Mutturaj Bisanal**

* Professor/HOD Dept of Child Health Nursing New Ashwini Institute of Nursing Sciences, Vijayapur-Karnataka
**Asst.Professor/ Dept of Mental Health Nursing, New Ashwini Institute of Nursing Sciences, Vijayapur-Karnataka

DOI: 10.29322/IJSRP.15.09.2025.p16511
https://dx.doi.org/10.29322/IJSRP.15.09.2025.p16511

Paper Received Date: 10th August 2025
Paper Acceptance Date: 10th September 2025
Paper Publication Date: 18th September 2025

Abstract

Background

Water is the major constitute of the body tissue, and total body water in the individuals ranges from 45 to 75% of Total Body Weight. Dehydration in children usually results from loosing large amount of fluid and not drinks enough water to replace loss. Oral Rehydration Solution (ORS) can be used to prevent dehydration and in many cases is quite literally a life saver. Oral rehydration therapy not only prevents death and dehydration.

OBJECTIVES OF STUDY

- To assess the knowledge on oral rehydration therapy among parents of toddlers in selected rural area at Bijapur before administering the structured teaching programme
- To develop and administer structured teaching programme on oral rehydration therapy
- To evaluate the effectiveness of structured teaching programme on oral rehydration therapy among parents of toddlers in selected rural area at Bijapur after administering the structured teaching programme
- To find out the association between pre and posttest knowledge score with the demographic variables.

Methodology

The study used a quasi -experimental methodology, a one group pre test and posttest design, and non probability purposive sampling technique. 60 parents of toddlers were given the structured interview knowledge questionnaire, along with inclusion

and exclusion criteria, in order to gather data from respondents. It consists of 30items that assessed regarding the problems of drug dependence. . Both descriptive and inferential statistics were used to describe the outcomes.

Results

The difference between the mean post-test and the mean pre-test scores found to be statistically significant ('t'$_{49}$ =3.8454) at 0.05 level of significance, P value (P<0.05) greater than the table value. The mean difference between the pre-test and the post-test knowledge score was a true difference and not a chance difference. This indicates that the STP was significantly effective in increasing the knowledge of parents of toddlers on the oral rehydration therapy. The findings reveals that there was significant association between pre-test knowledge score and selected socio-demographic variables such as gender (χ^2=60.26), Are you aware that the diarrhea could cause death to your child (χ^2 =12), Do your child have earlier exposure to diarrhea (χ^2 =5.238), Do your village having full medical availability (χ^2 =60.26), Have you received education on oral rehydration therapy (χ^2 =16.85) at 0.05 level of significance. Thus the (H0) hypothesis is rejected.

Interpretation and Conclusion

Findings of the study show that the knowledge of the parents was not satisfactory (X_1 =12.6) before the introduction of the structured teaching programme. The posttest knowledge score showed the significant increase(X_2=24.21) in the knowledge of the parents. Hence, structured teaching programme is an effective strategy for providing information and improving the knowledge of subjects.

Key Words: Assess, Effectiveness, Structured teaching programme, Knowledge, Oral rehydration therapy, parents of toddler

I. INTRODUCTION

Water is the major constitute of the body tissue, and total body water in the individuals ranges from 45 to 75% of Total Body Weight .The importance of body water to the body function is related not only to its abundance, but also to the fact that it is the medium in which body solute are dissolved and all metabolic reaction takes place. The loss of fluids through diarrhea can cause dehydration and electrolyte disturbances such as potassium deficiency or other salt imbalances, and through diarrhea also reduces the absorption of nutrients causing poor growth in children, reduce resistance to infection. Young children is most vulnerable especially under 5 years of age group. Annually 1.4 to 2.5 million deaths occurs children under the age of 5 years especially toddlers. Oral Rehydration Therapy has been a major advanced therapy and has saved many lives from acute diarrhea. ORT provides clear and practical methods for replacement of fluid and electrolyte losses during diarrhea.

II.OBJECTIVES

- To assess the knowledge on oral rehydration therapy among parents of toddlers in selected rural area at Bijapur before administering the structured teaching programme

- To develop and administer structured teaching programme on oral rehydration therapy
- To evaluate the effectiveness of structured teaching programme on oral rehydration therapy among parents of toddlers in selected rural area at Bijapur after administering the structured teaching programme
- To find out the association between pre and post test knowledge score with the demographic variables.

RESEARCH HYPOTHESIS

- H_0: There will be no significant association between the knowledge scores with selected demographic variables.
- H_1: The mean posttest knowledge scores of the parents of toddler on oral rehydration therapy will be significantly higher than their mean pre test knowledge scores.

Assumptions

- The parents will have inadequate knowledge regarding oral rehydration therapy.
- The structured teaching programme will enhance the knowledge of parents regarding oral rehydration therapy

Delimitations

The Study will be delimited to;

The study is delimited to Parents of toddler who are unavailable at the time of study.

III.MATERIALS AND METHODS

Research Approach

Quantitative research approach was used for this study.

Research Design

One group pre test, post- test design was used for this study.

Variable:

- **Independent variable:** - Structured teaching programme .
- **Dependent variable:** - knowledge regarding oral rehydration therapy
- **Extraneous variables:** Extraneous variables such as age, gender, religion, occupation, income, family etc.

Inclusion Criteria:

- Parents who are having toddlers
- Parents of toddler, who are able to read, write and understand Kannada, English.
- Parents who are willing to participate in the study.

Exclusion criteria

- Parents of toddler who are un available at the time of study

Setting of the study

- The present study was conducted at selected rural area at Bijapur.

Study Population

- The population for this study was Parents of toddlers of selected rural area at Bijapur

Sampling Technique

- The non randomized purposive sampling technique used for this study

Sample size

The sample size for the present study is 60

DESCRIPTION OF THE INSTRUMENTS

The data collection instrument is divided in to 2 parts:

Part I: Structured questionnaire for socio-demographical variables

Part II: self-administered knowledge questionnaire

DATA ANALYSIS

Data will be analyzed by using descriptive and inferential statistics.

- Organization of data in master sheet/computer
- Computation of frequencies and percentage for the analysis of socio-demographic data.
- Computation of mean, standard deviation for pre test and post test scores.
- Paired‘t’ test is used to test the significant difference in the pre test and post test knowledge scores.

- Chi – square test is used to find the association between the knowledge scores and socio-demographic variables. The level of significance would be set at **p≤** 0.05 levels to test the significance of difference. This level is often used as a standard for testing the difference.

IV.RESULTS AND DISCUSSION

1- Demographic variables of respondents

Age

Subjects 40(66.67%) were in the age group of 25-30 years. and other 20 (33.33%) were found in the age 18-25 years**.**

Gender.

Subjects according to their gender the data reveal that all of the subjects (60) were female (100%).

Religion.

Subjects according to their Religion Among the subjects majority 50(83.33%) were Hindu, remaining 10(16.67%) were Muslims and no one was found from other category.

Relation to toddler.

Relationship of toddler was mother only. So the 60(100%) subjects were falling in the category of mother only.

Awareness that the diarrhea could cause death to child

Among total 10(16.67%) subjects have an idea that the diarrhea can cause death to child. 50(83.33%) had not have an idea that the diarrhea can cause death to child.

Earlier exposure to diarrhea

10(16.67%) subjects had not earlier exposure to diarrhea**.** remaining 50(83.33%) were earlier exposure to diarrhea.

Full medical availability

Majority of the 58(96.67%) subjects had not full medical availability. 02(3.33%) of subjects were have full medical availability.

Previous education on oral rehydration therapy

Majority of the 56(93.33%) subjects were not having previous education on oral rehydration therapy remaining 04(6.67%) subjects were having previous education on oral rehydration therapy.

Section II: Analysis of pre test and post test knowledge on oral rehydration therapy.

a) Pre test knowledge level

Knowledge score	Pre test	
	Frequency(f)	Percentage %
Inadequate(0-10)	20	33.33%
Moderately adequate (11-20)	30	50%
Adequate(21-30)	10	16.67%
Total	60	100%

The data presented in Table 9 depicts that in the pre-test majority of the subjects 30(50%) had moderately adequate knowledge and 20(33.33%) had inadequate and knowledge and only 10(16.67) having adequate knowledge on oral rehydration therapy.

Area-wise mean percentage distribution of pre-test knowledge score of the parents of toddler. The mean percentage of knowledge score was maximum (58.2%) in the area of: Ingredients need for preparation ORS at home' with mean±SD of 4.66±0.94283 and minimum (38.4%) was in the area of Procedure of making ORS at Home and management of dehydration with mean±SD of 1.15± 0.37270.

b) Post test knowledge level

Knowledge score	Post test	
	Frequency(f)	Percentage (%)
Inadequate (0-10)	0	0%
Moderately adequate (11-20)	05	8.3%
Adequate (21-30)	55	91.7%
Total	60	100%

Majority of the subjects 55(91.7%) had adequate knowledge and 5(8.3%) had moderately adequate knowledge. None of the subjects possessed inadequate knowledge on oral rehydration therapy.

Area-wise mean percentage distribution of post-test knowledge score of the parent of toddler. The mean percentage of knowledge score was maximum (91.6%) in the area of 'Procedure of making ORS at Home and management of dehydration 'with mean±SD of 2.75±0.433 and minimum (72%) was in the area of 'History of development of oral Rehydration therapy' with mean±SD of 2.16±0.372.

Section III: Effectiveness of STP on oral Rehydration therapy among parents of toddler

The pre-test majority of the subjects 30(50%) had moderately adequate knowledge on oral Rehydration therapy and 20(33.33%) had inadequate knowledge and 10(16.67) had adequate knowledge. In the post-test it was observed that 55(91.7%) subjects had adequate knowledge, 5(8.3%) had moderately adequate knowledge and no one had inadequate knowledge on oral Rehydration therapy.

The subject's knowledge score was higher in the post-test (range: 12-30) than that in the pre-test (range: 4-25). It is also evident that the mean post-test knowledge score (24.21±3.50805) was higher than that of the pre-test (12.6±5.65143).

Paired't' test showing the significance of mean difference between pre-test and post-test knowledge score of the parents of toddler regarding oral Rehydration therapy.

The calculated't' (3.8454) value was greater than the table value. Hence the null hypothesis was rejected at 0.05 level of significance. And H1 is accepted. The mean difference between pre-test and post-test knowledge score was a true difference and not a chance difference. This indicates that the STP was significantly effective in increasing the knowledge.

Section IV: Association of pre-test knowledge score of parents of toddler with selected socio-demographic variables

The calculated chi-square value was more than the table value and P > 0.05 hence there was significant association between pre-test knowledge score and selected socio-demographic variables such as gender (χ^2=60.26), Relationship to toddler (χ^2 =12), Do your child have earlier exposure to diarrhea (χ^2 =5.238), Do your village having full medical availability (χ^2 =60.26), Have you received education on oral rehydration therapy (χ^2 =16.85) at 0.05 level of significance. Thus the (H2) hypothesis is accepted.

V.CONCLUSION

The loss of fluids through diarrhea can cause dehydration and electrolyte disturbances. Young children is most vulnerable especially under 5 years of age group. Annually 1.4 to 2.5 million deaths occurs children under the age of 5 years especially toddlers. ORT provides clear and practical methods for replacement of fluid and electrolyte losses during diarrhea. the knowledge

of the parents was not satisfactory (X_1 =12.6) before the introduction of the structured teaching programme. The posttest knowledge score showed the significant increase(X_2=24.21) in the knowledge of the parents. Hence, structured teaching programme is an effective strategy for providing information and improving the knowledge of subjects.

VI.ACKNOWLEDGEMENT

We appreciate Tulza Bhavani College of Nursing Vijayapur, for granting permission and providing ethical clearance for this research endeavor. We would like to convey our heartfelt gratitude to the parents of the toddlers for granting permission and creating an appropriate environment for the research project. Also, we would like to thank our beloved Principal and the Child Health Nursing Department, as well as the teaching and non-teaching staff, for their constant support and guidance in completing the study work.

CONFLICT OF INTEREST- None declared

ETHICALCLEARENCE- Ethical Clearance Certificate was obtained by Institutional Ethical Committee**.**

VII. REFERENCES

1. http://en.wikipedia.org/wiki/Politics_of_ort_dehydration cited on 18/11/12.
2. Onyango.DM, Angienda.PO, Epidemiology of water borne diarrheal diseases among children aged 6-36 months old in western Kenya. International journal of biological and life science.2010; 6(2):92-98.p.
3. Ali.M, Underwood, Determinants of use rate of oral rehydration therapy for management of childhood diarrhea in rural Bangladesh. Journal of health and population nutrition.2000; 18(2):103-108.p.
4. Rehan.HS, Mothers needs to know more regarding management of childhood acute diarrhea in Nepal. Indian journal of preventive and social medicine.2003; 34(1):40-44.p.
5. MacDonald SE, Moralejo DG, Matthews MK.Correct preparation and administration of oralrehydration solution: essential for safe and effective home treatment of diarrhea in Indonesia. Int Q Community Health Educ. 2005-2006;24(3):205-14.p.
6. Suresh.k.s.nursing research and statistics I ST edition,eslevier publication page no. 9-10.P.
7. Joseph R.Knowledge and perception of mothers and caregivers on childhood diarrhea and its management in Temeke municipality, Tanzania. Tanzan J Health Res. 2010 Jan;12(1):47-54.p.
8. Kaatano GM, Muro AI, MedardM.Caretaker's perceptions, attitudes and practices regarding childhood febrile illness and diarrhoeal diseases among riparian communities of Lake.
9. Dutta P. ‘Gasro Enteritis’, Indian Journal of public heath, 1194 April-June 53 pp 94-99 Victoria, Tanzania. Tanzan Health Res Bull. 2006 Sep;8(3):155-61.p.
10. Dr.Jain SK, Dr.Khan JA, Epidemiological study of acute diarrheal disease and acute respiratory infection among under five children in Rajasthan. Indian journal for the practicing doctor.2006; 3(5):2-13.p