



A pre-experimental study to assess the effectiveness of planned teaching programme on the knowledge regarding prevention and management of diarrhoea among mothers of under five year children in selected community areas at Moradabad

Firoz Qureshi

PG Tutor, Syadwad Institute of Higher Education and Research, Baghpat, Uttar Pradesh, India

Abstract

Introduction: Diarrhoea is a common disease and is one of the major determinants of childhood morbidity and mortality. Roughly 1.5 million children die due to diarrhoea and diarrhoea related diseases every year. The Government of India through its National CDD (Control of Diarrhoea Diseases) Programme plans to reduce the infant mortality rate from 95 to 50 and pre-school mortality from 41.2 to 10 per 1000 by the year 2000 A.D. During 2005, about 1.07 million cases of acute diarrhoea with 1040 deaths were reported in India. According to the Uttar Pradesh statistical report, Bahraich was the most flood-affected district in the year 2007 with around 173 villages flooded in the year 2008, around 183 villages were affected due to floods (the period of floods in the district is from the end of July till mid-September).

Methods: Quantitative research approach is used to evaluate the effectiveness of planned teaching programme on diarrhoea among mothers regarding prevention and management of under five year children using Convenient sampling.

Result: Results of the study finding concluded in pre-test knowledge that 30% mothers have adequate knowledge, 56.66% mothers have moderate knowledge & 13.33% mothers inadequate knowledge. And post-test knowledge that 83% mothers have adequate knowledge, 16% mothers have moderate knowledge & 0% mother's inadequate knowledge.

Conclusion: Based on review which is included in this study, the mothers of under five year children were lacking in knowledge regarding prevention and management of diarrhoea. The ultimate goal of the study is to use the findings and make the mothers aware about the prevention and management of the diarrhoea.

Keywords: assess knowledge, diarrhoea, mother, prevention, management, planned teaching programme

Introduction

“When you can't breathe, nothing else matters”

American Lung Association

Diarrhoea is a common disease and is one of the major determinants of childhood morbidity and mortality. Diarrhoea is one of the main causes of death in children under 5 years of age in India. Roughly 1.5 million children die due to diarrhoea and diarrhoea related diseases every year. The Government of India through its National CDD (Control of Diarrhoea Diseases) Programme plans to reduce the infant mortality rate from 95 to 50 and pre-school mortality from 41.2 to 10 per 1000 by the year 2000 A.D.

During 2005, about 1.07 million cases of acute diarrhoea with 1040 deaths were reported in India. Out-breaks of diarrhoeal diseases (including cholera) continue to occur in India due to poor environmental conditions. The type of cholera that is now widely prevalent in India is "El Tor Cholera". It is milder infection as compared to older "classical cholera".

Mothers' basic knowledge about diarrhoea depends on various factors such as educational status, prior experience of managing the disease and even ethnicity. Studies in the literature show that though most of the mothers were familiar with the term oral rehydration salt (ORS), there were

knowledge gaps as regards its correct preparation and administration. The signs of dehydration due to diarrhoea remain unnoticed by the majority of the mothers. Mothers' knowledge about diarrhoea can be improved through educational interventions but written information only is not enough. It is more effective if pictorials and demonstrations are included along with written material.

According to the Uttar Pradesh statistical report, Bahraich was the most flood-affected district in the year 2007 with around 173 villages flooded in the year 2008, around 183 villages were affected due to floods (the period of floods in the district is from the end of July till mid-September). District Bahraich is mainly agrarian in nature with 70% of the farmers in the district being small and marginal. The district is least developed in the state of Uttar Pradesh. It qualifies as one of the most backward districts in the state on account of a very large population of poor Muslims (35%), having the lowest literacy rate (35.79%) in the state and being the most flood-affected district. It is in this background that the present study was carried out in the first half of July (from July 5-15) 2009.

Background of the study

The conducted study on 108 rural mothers about childhood diarrhoea was determined by using pretested semi-structured interview schedules. The common process are diarrhoea

reported were eruption of teeth [67.59%], eating of mud [51.85%] worm infestation [47.22%], change of climate [35.18%], poor personal hygiene [34.25%] and changes in diet [25.92%]. Majority [83.33%] of mothers practice food restriction during diarrhoea. 77% consulted their mother – in – laws in the first instance for treatment of diarrhoea. The home remedies tried by mothers were, isabgol husk with curd [30.55%], ghee with tea [28.70%], water boiled with mint leaves [25.92%], local ghutti [22.22%], and unripe mango juice [16.66%]. Majority of mothers [83.33%] believed that oral rehydration therapy alone cannot treat diarrhoea.

Investigated on knowledge, attitudes and practices [KAP] regarding the management of diarrhoea on drug sellers in eastern Nepal. In Nepal drug sellers often act as the first treaters. About 50 to 60% of them were unaware of uncontrolled diarrhoea and importance of ORS in its management. Only 20% of the drug sellers using along with drugs such as ant motility agents [AMA] or metronidazole. As a result of the above conferring knowledge about the ethical aspects of drugs in the management of diarrhoea.

Incorporated into the IMCI guidelines in over 79 countries around the world. According to this 2.2 million diarrhoeal deaths occur annually in developing countries in children under-fives. This study shows that the prevalence of diarrhoea in under-fives can be treated by taking oral rehydration therapy, appropriate drug therapy optimal breast feeding practices, improved nutrition access to clean water and sanitation facilities and improve personal domestic hygiene. In addition reanalysis of the efficacy of the past rotavirus vaccine trials in Peru and Brazil has demonstrated that a safe vaccine would have a significant public health impact.

Need for the study

Diarrhoea is one of the most important gastrointestinal disorders in under five years of age children. Diarrhoea is ranked among the top three causes of childhood deaths in the developing countries. Diarrhoea continues to a major cause of Morbidity and Mortality world-wide result in an estimated thousand deaths among children each day the highest incidents in being developing countries of the world.

One of the important objective of the child survival and safe motherhood programme was to reduce 30% of diarrhoeal related deaths in children under the age of one to five year.

Objectives

1. To assess the pre-test and post-test knowledge of mother regarding prevention and management of diarrhoea among mothers.
2. To evaluate the effectiveness of planned teaching programme.
3. To seek the association of knowledge of mother with selected demographical variables.

Hypothesis

H1 - There is a significant difference between pre-test and post-test knowledge score and regarding prevention and management of diarrhoea among mothers of under 5 year children in selected community areas of Moradabad.

H2 - There is a significant association between pre-test knowledge score of mothers regarding prevention and

management of diarrhoea with selected demographic variables of mothers of under five year children.

Method

A Quantitative approach is to use evaluate the effectiveness planned teaching programme on diarrhoea among mothers regarding prevention and management of under five year children. Research design used for this study is pre-experimental, one group pre-test – post-test research design using Convenient sampling.

Scoring Interpretation

The possible vital score for multiple choice questions on knowledge related to prevention and management of diarrhoea among mothers of under five children was a score of 30. A score of one mark was given for every correct answer and zero was given for wrong answer.

The score was ranged as follow

- Adequate knowledge :76-100%
- Moderately adequate knowledge :51-75%
- Inadequate knowledge : 50% and below

Reliability

To ensure the reliability, the tools has been was administered to 6 mother of under five children in selected village bangarpur at Moradabad. KUDER-RICHARDSON was used to check the knowledge questionnaire by using split half method. The reliability of the structured knowledge questionnaire on diarrhoea among the mother under five year of children was found as 0.76 which indicated high degree of reliability of the questionnaire.

Data collection process

This study was conducted in village Bangarpur at Moradabad (UP).The data was collected month of September 2013. Data collection permission was obtained from the Ethical Committee. Tools are the structure questionnaires used by the investigator to assess the knowledge mother of regarding prevention and management of diarrhoea under five children was conducted to each subject by lecture cum discussion method, after each pre-test. After 6 days of pretest, post-test was conducted using the sample schedule to evaluate effectiveness of planned teaching programme.

Data Analysis

The analysis of data involves the translation of information collected during the course of a research project into interpretable forms. It involves the use of statistical procedure to give organization and meaning to data.

Data analyzed in forms of both descriptive and inferential statistics

Descriptive Statistics

Such as frequency, percentages, mean percentages will be used; and data percentage in terms of tables and diagrams.

Inferential Statistics

Such as unpaired ‘t’ test was used to find out the differences between pre-test and post-test of the study group. Chi square was used to see the relationship between knowledge with

selected demographic characteristics. All statistics were done at 0.76 level of significance. Data was presented in tables, graphs and diagram.

subjects

Respondents by age, education, religions, type of family, number of child under five children, family monthly income, sources of knowledge and family.

Section 1: Analysis of demographic variables of the

Table 1

Characteristics	Category	Respondents	
		Frequency (f)	Percentage %
Age Group	18-23	0	0%
	24-28	10	16.66%
	29-30	10	16.66%
	31 or more than 31	40	66.66%
Parents Education	Primary school	25	41.66%
	Intermediate	05	8.33%
	Graduate	01	1.66%
	Literate	29	48.33%
Religion	Hindu	25	41.66%
	Muslim	35	58.33%
	Sikh	0	0%
	Other	0	0%
Types of Family	Joint family	30	50%
	Nuclear family	25	41.66%
	Extant family	05	8.33%
Number of Child	1	05	8.33%
	2	20	33.33%
	3	25	41.66%
	4 And above	10	16.66%
Family Monthly Income	Less than 5000	0	0%
	5000-10000	0	0%
	10000-15000	20	33.33%
	More than 15000	40	66.66%

Section II: Effectiveness of planned teaching programme on knowledge to prevention of diarrhoea among mothers of under five children.

- a) Comparison of pre-test and post-test knowledge regarding prevention and management of diarrhoea among mothers of under five children.

Part A: level of knowledge

Table 2: level of knowledge for pre-test and post test N=60

Level Of Knowledge	Range	Pre Test		Post test	
		f	%	f	%
Inadequate	0-10	18	30%	50	83%
Moderate	11-14	34	56.66%	10	16.66%
Adequate	15-25	8	13.33%	0	0%

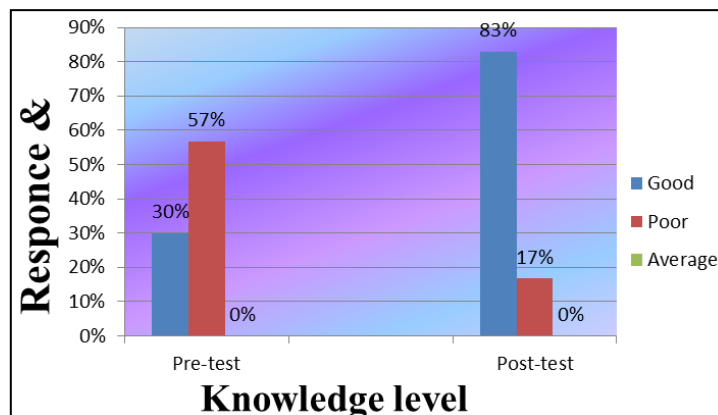


Fig 1

Table 3: Assessment of mean and standard deviation with 't' value of knowledge (pre-test and post test score). N=60

S. No.	Number of sample	Minimum score	Maximum score	Mean	SD	T-value
Pre-test knowledge	60	14	27	23.31	3.09	27.6*
Post-test knowledge	60	13	28	21.93	3.96	

The above table depicts that the pre-test mean knowledge score is 23.31 with standard deviation is 3.09 and post-test mean knowledge score is 21.93 with standard deviation is 3.96. The overall pre-test and post-test knowledge 't' value is 27.6

Hence, its significant at the level of $p < 0.05$. It evidences the effectiveness of planned teaching programme of knowledge regarding prevention and management of diarrhoea among mother of under five children.

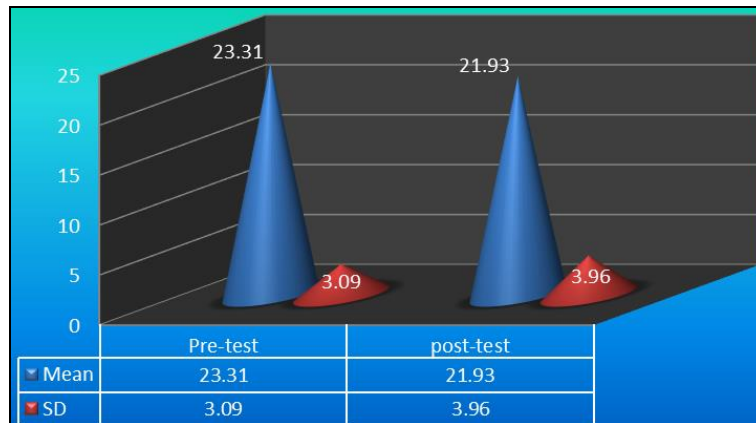


Fig 2

Section 3: Association between pre-test knowledge score with demographic variables such as age, education, religions, type of family, number of child under five children, family monthly income.

Table 4: N=60

S no.	Variables	Adequate		Moderate		Inadequate		Chi- Square	Table Value	Significance	df	Inferences
		f	%	f	%	f	%					
1.	Age							13.07	12.59	0.05	6	S
A	18-23yr.	0	0%	0	0%	0	0%					
B	24-28yr.	0	0%	3	3%	4	4%					
C	29-30yr.	10	10%	7	7%	3	3%					
D	31 or more than 31yr.	19	19%	13	13%	1	1%					
2.	Parents Education							2.48	12.59	0.05	6	NS
A	Primary school	12	12%	7	7%	2	2%					
B	Intermediate	0	0%	0	0%	0	0%					
C	Graduate	0	0%	0	0%	0	0%					
D	Literate	15	15%	18	18%	6	6%					
3.	Religion							0.48	12.59	0.05	6	NS
A	Hindu	14	14%	12	12%	5	5%					
B	Muslim	15	15%	11	11%	3	3%					
C	Sikh	0	0%	0	0%	0	0%					
D	Other	0	0%	0	0%	0	0%					
4.	Types Of Family							1.08	09.40	0.05	4	NS
A	Joint family	16	16%	12	12%	4	4%					
B	Nuclear family	7	7%	7	7%	3	3%					
C	Extant family	6	6%	4	4%	1	1%					
5.	Number Of Child							6.42	12.59	0.05	6	NS
A	1	0	0%	0	0%	0	0%					
B	2	5	5%	1	1%	0	0%					
C	3	13	13%	7	7%	2	2%					
D	4 And above	11	11%	16	16%	5	5%					
6.	Family Monthly Income							1.11	12.59	0.05	6	NS
A	Less than 5000	0	0%	0	0%	0	0%					
B	5000-10000	0	0%	0	0%	0	0%					
C	10000-15000	6	6%	6	6%	3	3%					
D	More than 15000	24	24%	16	16%	5	5%					

S-Significant NS-not Significant

Discussion

The present study was attempted to "A Pre-Experimental study to assess the effectiveness of planned teaching programme on the knowledge regarding prevention and management of diarrhoea among mothers of under 5 year children in selected area At Moradabad (up)"

The findings of the study are discussed as per objective of the study.

Nursing Implication

The current study findings have implications in all the field of nursing like nursing practice, nursing education, nursing administration and nursing research. The implications can be discussed as follows:

Nursing Practice

The result of the research on a A Pre-Experimental Study To Assess The Effectiveness Of Planned Teaching Programme On The Knowledge Regarding Prevention And Management Of Diarrhoea Among Mothers Of Under five Year Children In Selected Community Areas At Moradabad. It helps the nurse to assess knowledge of among mother of under five children to increase the knowledge.

Nursing Research

In the field of research it helps for innovation research work. Utilization of finding and dissemination of knowledge in the field of prevention and management of diarrhoea. This study will be a motivation for the researchers to conduct similar studies on a large scale.

Nursing Administration

The nursing administration of all nursing personnel should support and conduct activates regarding the knowledge of prevention and management of diarrhoea among the mothers of under five children At Moradabad.

Nursing Education

As a nurse educator a self-learning module can be prepared to teach the mothers of under five year children on prevention and management of diarrhoea can be included in the nursing curriculum and special group preparing the aspiring professional to function efficiently and effectively. In order to achive this, the students, nurses and all health personnel should be given the responsibility to teach the community and the teaching should be repeated until they gain knowledge.

Recommendation

Based on the findings of present study the following recommendations were made:

- The study can be replicated using a large sample to validate the findings on the generalization.
- Study can be conducted by including additional demographic variables.
- A pre-experimental study may be conducted to assess the knowledge of mother under five year children.
- A structural teaching programme may be conducted to find out the effectiveness of STP on Changing lifestyle of

mother for under five year children.

Limitation

The limitations of the study were:

1. The study was limited to 12 weeks period only
2. The study was limited only mothers who have under five year children
3. The study was limited only 60 sample size.

The was conducted in selected in selected community area At Moradabad

Conclusion

The purpose of the study was to evaluate the effectiveness of plan teaching programme on knowledge regarding prevention and management of diarrhoea among mothers of under five year children in selected community areas At Moradabad, (up)."Pre-experimental one group pretest-post-test design was used in the study.

References

1. Park K, Preventive and social medicine, 19th edition, 2007, Jabalpur, pp. 182-186.
2. Whaley, Wongs. Essentials of paediatric madicine, –1st edition, Harcourt private Ltd. 2001; pp. 806-808.
3. Basanthappa BT, Community health nursing. 2003; 194-196.
4. Suraj Gupte. The short text book of paediatrics, 9th edition, Jaypee brothers, medical publishers, New Delhi. 2001; 325-328.
5. Paruldatta. Paediatric Nursing, 1st edition, New Delhi, pp. 286-288.
6. Donna L. Wong Marilyl Hocken Berry Eaton, the text book of paediatric Nursing, 6th edition, Harcourt Private Limited publishers. 2001; 288-300.
7. American Journal of Tropical medicine
8. Scientific world Journals 2005
9. A Journal of rural health 2007
10. A Journal of Community health nursing, 12:25-27.
11. A Journal of Paediatric Gastroentology and Nutrician, 1996.
12. Eastern Mediterranean health Journal. 1996; 2:102-106.
13. The integrated management of child hood illness – Article in French. 2004; pp. 137-142.
14. Diarrhoea management among underfives – Indian article. 2004; pp. 255:260.
15. A journal of knowledge and practices among rural mothers, 2007.
16. Health education research. 2004; 19:326-329.
17. A knowledge attitude and practices survey of water and sanitation, 2002.
18. WHO Readings in Diarrhoea, Student Manual. Geneva, World Health Organization, 1992.
19. World Health Organization Ninth Programme Report, 1992-93, Programme for Control of Diarrheal Diseases, WHO/CDD/94.46. Geneva, World Health Organization, 1994.
20. Ghosh S. The Feeding and Care of Infants and Young Children, 6th Revised Edition, New Delhi, Voluntary Health Association of India. 1992; pp. 53-56.
21. Kapoor P, Rajput VJ. Maternal knowledge, attitude and

- practices in diarrhea. *Indian Pediatr.* 1993; 30:85-88.
22. Anand K, Lobo J, Sundaram KR, Kapoor S. Knowledge and practices regarding diarrhea in rural mothers of Haryana. *Indian Pediatr.* 1992; 29:914-917.
 23. World Health Organization. *The Management and Prevention of Diarrhea*, 3rd edn. Geneva, World Health Organization, 1993.
 24. Kaur P, Singh G. Food practices during diarrhea, *Indian Pub Hlth.* 1994; 38:58-61.
 25. Mishra CP, Satish Kumar, Tiwari IC. A study on some diarrhea related practices in urban Mirzapur, *Indian J Pub Hlth.* 1990; 34:6-10.
 26. Viswanathan H, Rohde JE. *Diarrhea in Rural India; A Nationwide Study of Mothers and Practitioners (South Zone)*. New Delhi, Vision Books, 1990.
 27. Srinivas DK, Afonso E. Community perceptions and practices in childhood diarrhea. *Indian Pediatr.* 1983; 20:859-864.
 28. Littlewood T, Pokhrel D. Conceptualisation of diarrhoea in Nepal: for professionals working with children in the hospital and community. *J Child Health Care* 1999; 3(3):5-8.
 29. Bhattachan KB, Sunar TB, Bhattachan (Gauchan) YK. Caste based discrimination in Nepal. Indian Institute of Dalit Studies (HDS), Delhi and International Dalit Solidarity Network (IDSN), Copenhagen, 2007.
 30. Bishwakarma BM. Educational status of Musahar community. Social Inclusion Research Fund Secretariat, SNV Nepal, 2008.
 31. Mwambete KD, Joseph R. Knowledge and perception of mothers and caregivers on childhood diarrhoea and its management in Temeke municipality, Tanzania. *Tanzan J Health Res.* 2010; 12(1):47-54.
 32. Anidi I, Bazargan M, James FW. Knowledge and management of diarrhoea among undeserved minority parents/caregivers. *Ambul Pediatr.* 2002; 2(3):201-6.
 33. Jha N, Singh R, Baral D. Knowledge, attitude and practices of mothers regarding home management of acute diarrhoea in Sunsari, Nepal. *Nepal Med Coll J.* 2006; 8(1):27-30.
 34. Datta V, John R, Singh VP, Chaturvedi P. Maternal knowledge, attitude and practices towards diarrhoea and oral rehydration therapy in rural Maharashtra. *Indian J Pediatr.* 2001; 68(11):1035-7.
 35. Rasania SK, Singh D, Pathi S, Matta S, Singh S. Knowledge and attitude of mothers about oral rehydration solution in few urban slums of Delhi. *Health Popul Perspect Issues.* 2005; 28(2):100-7.
 36. MacDonald SE, Moralejo DG, Mathews MK. Maternal understanding of diarrhoea-related dehydration and its influence on ORS use in Indonesia. *Asia Pac J Public Health.* 2007; 19(1):34-9.
 37. Gupta N, Jain SK, Ratnesh, Chawla U, Hossain S, Venkatesh S. An evaluation of diarrheal diseases and acute respiratory infections control programmes in a Delhi slum. *Indian J Pediatr.* 2007; 74(5):471-6.
 38. Delgado MF, Sierra CH, Calvache JA, Rios AM, Mosquera C, Salas I, *et al.* Maternal knowledge about children's danger signs in acute diarrhoea in an IMCI's frame. *Colomb Med.* 2006; 37(4):293-8.
 39. Othero DM, Orago AS, Groenewegen T, Kaseje DO, Otengah PA. Home management of diarrhoea among under fives in a rural community in Kenya: Household perceptions and practices. *East Afr J Public Health.* 2008; 5(3):142-6.
 40. Rishi RK, Bodakhe SH, Tailang M. Patterns of use of oral rehydration therapy in Srinagar (Garhwal), Uttaranchal, India. *Trop Doct.* 2003; 33(3):143-5.
 41. Annual Report FY 2009/10. District Public Health Office, Morang, Biratnagar, 2010.
 42. www.Pubmed.com
 43. www.Google.com
 44. www.diarrhoea.about.com
 45. www.diarrhoea.channel.com
 46. www.emedicinehealth.com
 47. www.oxfordjournal.org
 48. www.sciencedirect.com
 49. www.rguhs.ac.in
 50. www.childpain.org