Mamta Jaiswal
Department of Home Science
KNIPSS Sultanpur,
Uttar Pradesh India

To study the knowledge and control of diarrhoea

Mamta Jaiswal

Abstract
Diarrhoea is described as three or more loose or watery stools a day. Infection commonly cause acute diarrhea. Treatment and management are based on the duration and specific etiology. Fluid and electrolyte replacement, particularly via oral rehydration is the mainstay of the therapy for the prevention and treatment of dehydration associated with these illness. Oral rehydration solution (ORS) are used in only 70 % infants presenting with acute diarrhea. In the case of acute diarrhea there is no indication to stop the breast feeding.

Keywords: Diarrhoel diseas, infection, hygiene, prevention, stools

Introduction
Children can have acute or chronic forms of diarroea, cause include bacteria, viruses, parasites, medications, functional disorders and food sensitivities, infection with the rotavirus is the most common cause of acute childhood diarrhea, rotavirus diarrhea usually resolve in 3-9 days.
Medication to treat diarrhea in adults can be dangerous than to children and should be given only under the doctor's guideline.
Diarrhoea can be dangerous in newborn and infants. In small children, severe diarrhea lasting just a day or two can lead to dehydration, Because a child can die from dehydration within a few days, the main treatment for diarrhea in children is rehydration.
Community health worker and villege health worker have a great share in preventing diarrhoeal disease. To educate people to about sensible and limited use of medicines and the benefit of ORT in case of the most important jobs of the health worker.

Objectives
1. To identify the knowledge of respondents used for controlling diarrhea.
2. To creating awareness among respondenes through mass media communication.

Research Methodology
This chapter deals with the research producedures applied in conducting the present study. For convenience, the research methodology has been discussed under the following three sub-heads
- Research design.
- Data gathering procedure and statistical techniques used.

Research design
It comprises of the following sub-parts
- Locale of the study
- District under study
- Selection of the slums
- Sample of respondents
- Pilot study
- Pre-testing of instruments
- Tools and data collection
- Statistical analysis of data

Locale of the study
Uttar Pradesh was chosen as locale of the study. This was done with the intension that U.P. is a major state of the country and diarrhoea is a major problem of the state as well as the country.

Correspondence
Mamta Jaiswal
Department of Home Science
KNIPSS Sultanpur,
Uttar Pradesh India

District under study
District Kanpur was purposively selected for this study because kanpur city is a big city and Population of this city is very high and there are more pollution and cases of diarrhea occur more in this city.

Selection of the slums
Kanpur city is divided in six zones and every zone have slums. Present investigation was carried out in 6 urban slums of Kanpur city.

Selection of children
After having prepared a list of children from each slum, out of 300, 50 children were randomly selected from each 6 zones in Kanpur city.

Pilot study
Prior to finally deciding the title of the project a pilot servey of the area was conducted. This gave an idea about the place of the study and nature of the samples.

Pre-testing of instruments
Before collecting the data from the finally selected sample of 300 children were identified other than those included in the final sample of respondents.these children's mother were interviewed with the help of schedules and quistionnairs developed for collecting the data.

Tools and data collection
The necessary evidence were collected in line with the objective of the study. All the 300 children respondents were inclusively approaches by the researcher. By personal contact, all the respondents mother were interviewed with the help of schedule for the study.

Statistical analysis
Statistical analyses are procedures used in finding out the numerical value of the whole study. The statistical techniques used in the study are as follows:
- Percentage
- Arithmetic mean
- Chi-square test
- Correlation coefficient
- Standard deviation

Percentage
Single comparisons were made on the basic of the percentage, for drawing percentage, the frequency of a particular cell was multiplied by 100 and divided by total number of respondents in that particular category to which they belonged.

$$\text{Percentge} = \frac{\text{The sum of all the responses}}{\text{Total number of all the responses}}$$

Arithmetic Mean
Arithmetic mean is the average used in the present study symbolically,

$$\overline{X} = \frac{\sum X_i}{N}$$

(i)For ungrouped data

$$\overline{X} = \frac{\sum f_i X_i}{\sum f_i},$$

(ii) For grouped data

where,

X = Arithmetic mean

$X_i = i^{th}$ variable

$f_i = i^{th}$ frequency

$\sum f_i$ = Total frequency

Chi-square test
In order to test the independence of two attributes a Chi-square test was applied as –

$$\chi^2 = \sum_{i=1}^{n} \frac{(o_i - E_i)^2}{E_i},$$

where

o_i = Observed frequency of ith cell

E_i = Expected frequency of ith cell

In $x \times c$ contingency table, χ^2 value is compared at $(r - 1) \times (c - 1)$ degree of freedom with theoretical value of χ^2 at 5 percent level of significance.

Correlation coefficient
Karl pearson has given a coefficient of correlation for the measurement of linear relationship, which exist between two variables. If X and Y are two variables and if $E(X, Y) \neq 0$ then correlation coefficient (r) is

$$r = \frac{\text{Cov}(X, Y)}{\sqrt{\text{Var}(X)\text{Var}(Y)}}$$

or

$$= \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}},$$

where

$$\sum xy = \left[\sum XY - \frac{\sum X \times \sum Y}{n} \right]$$

$$\sum x^2 = \left[\sum X^2 - \frac{(\sum X)^2}{n} \right]$$

$$\sum y^2 = \left[\sum Y^2 - \frac{(\sum Y)^2}{n} \right]$$

and n = Sample size.

Standard deviation (S. D)
It is defined as the square root of the means of the squares of the deviations taken from arithmetic mean –
For ungrouped data

$$\text{S.D.} = \sqrt{1/n \sum (\sum X_i - \overline{X})^2}$$

For grouped data

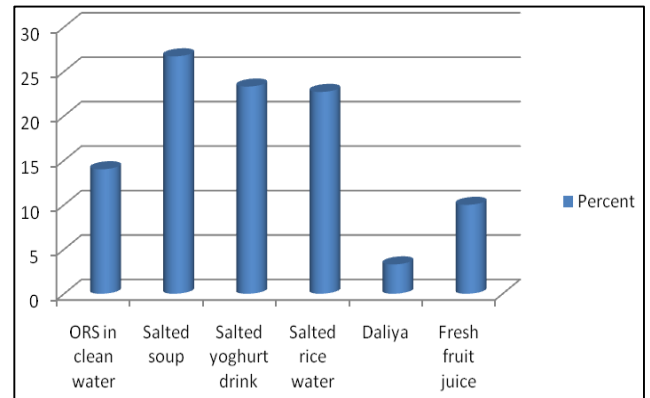$$\text{S.D.} = \sqrt{1/n \; \Sigma \; f_i - (X_i - \overline{X})^2}$$

Finding and Discussion

The empirical results and its discussion have been presented in this chapter. For the purpose of convenience, the finding of the study have been sub-divided under the following heads:-

- To identify the knowledge of respondents used for controlling diarrhoea
- To creating awareness among respondenes through mass media communica

Table 1. Distribution of families on the knowledge about controlling diarrhea liquid and salt method

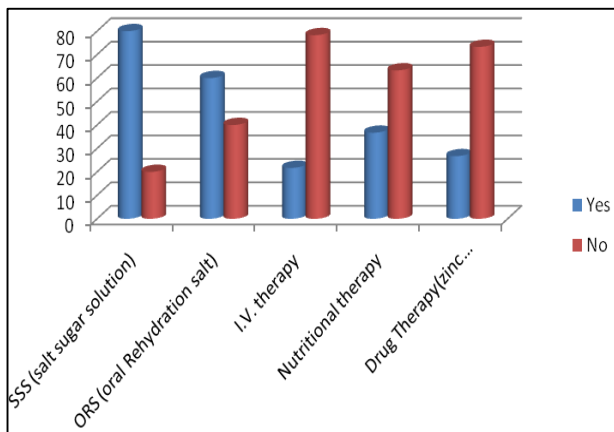| Good liquid with salt	N	Percent
ORS in clean water	42	14
Salted soup	80	6.7
Salted yoghurt drink	70	23.3
Salted rice water	68	22.7
Daliya	10	3.3
Fresh fruit juice	30	10.0
Total	300	100

To study the knowledge and control of diarrhoea

Table 1 shows that knowledge about liquid + salt maximum 26.7 per cent respondents were known about salted soups whereas 23.3 per cent respondents were given to the children salted yoghurt drink. 22.7 per cent respondents have known about salted rice water and 14.0 percent respondents have knowledge about ORS in clean water. Kapoor and Rajput (1993) reported that only 4.4 mothers used ORS for treatment of diarrhea.

Table 2. Distribution of mother's knowledge about various methods of treatment of diarrhea

S. No.	Knowledge related to treatment	Yes	No	Score
1	SSS (salt sugar solution	240(80.0)	60(20.0)	1.80
2	ORS (oral Rehydration salt)	180(60.0)	120(40)	1.60
3	I.V. therapy	65(21.7)	235(78.3)	1.22
4	Nutritional therapy	110(36.7)	190(63.3)	1.37
5	Drug Therapy(zinc supplements)	80(26.7)	220(73.3)	1.27

Mamta Jaiswal

Table 2 shows that majority of the parents are aware about sugar-salt-solution(1.80) in present scenario and more than fifty per cent parents were known about oral rehydration salt solution used in diarrhea symptoms. Lesser parents known about I.V. therapy (1.32).The first step of rehydrating a child starts from at home,but it involve the ability of the mother to recognize the disease. SSS which can be prepared at home easily. This can replace the fluid deficits but is unable to correct hypokalemia, acidosis and usually associated with hypermatremia. The ORS put out by WHO may be regarded as a universal all purpose solution. The success rate of ORS therapy currently is 99.0 per cent. 1.37 scored by parents in nutritional therapy like breast feeding cereal based gruels may be used (rice, maize, wheat). Breast milk is the food of choice

for infants and it should not be discontinued during diarrhea. Zinc supplementation for 10/14 days in the recommended dose for the child age. Zinc should be given as soon as the child can eat and successfully completed 4 hours after rehydration. Zinc may be prevent future diarrhea episodes for up to three months.

Table 3. Distribution on the basis of awareness through mass media sources

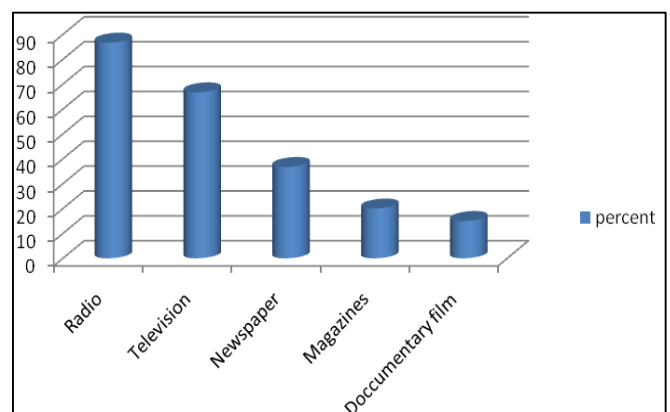| Mass Media Communication	Frequency	Percent
Radio	260	86.7
Television	200	66.7
Newspaper	110	36.7
Magazines	60	20.0
Doccumentary film	45	15.0
Total	300	100.0

Table 3 shwos awareness through mass media. Mass media was the most suitable extension methodology to creat awareness and developed interest among the large number of women at lesser cost and time. More (85.0 %) women were aware of the various form broadcast programmes which might be due to the easy availability of radio sets and about 66.7 respondants were aware of the telecast programmes presence of TV channel. Not more than fifty per cent respondants were aware print media such as newspaper and magazines in knowledge about prevent diarrhoel disease. In radio and television, it shows always preparation of ORS, but never show causes, symptoms, and treatment of diarrhea. There are need to right communication about diarrhea through the radio and TV. Newspaper and Magazines should publish proper knowledge about diarrhea and causes, treatment which can diarrhea controlied.

Summary and Conclusion
Maximum respondents have given rank to the first primary treatment to home made (salt + sugar + water) and second rank to ORS solution which is easily available in government hospitals and all medical stores now-a-days every mother should have knowledge of home treatment and home remedies and know about preaparation of sugar-salt solution and ORS solution.

Prevention of diarrhea disease include breastfeeding, improved weaning practices, use of safe water, hand Washing, use of clean laterins, proper disposal of stools, good personal and domestic hygiene. Zinc supplementation is now being recommended by WHO, UNICEF and around the country for treatment of diarrhea

Mass media was the most suitable extension methodology to creat awareness and developed interest among the large number of women. More (85.0 %) women were aware of the various form broadcast programmes which might be due to the easy availability of radio sets and about 66.7 per cent respondents were aware of the telecast programme which might be due to presence of TV channels. Not more than fifty per cent respondents were aware about print media such as newspaper and magazine in knowledge about preventing diarrhea.

References
1. WHO November). Water, sanitation and hygiene links to health: facts & figures. http;//water, sanitation, hygiene, 2004.
2. Pittet D. Lancet Clean hands reduce the burden of disease. http//www. Hygiene, hand clean water – Rehydration project. Html. 2005; 366(9841):185-186.
3. Becky Remedies for diarrhea. http://www home remedies – for you.com/addnl_terms.htm, 2007.
4. Ritu Remedies for diarrhea. http://www. Home remidies-for-you.com, 2007.
5. Lancet causes of child deaths, http;www/effect of antenatal multiple micronutrient supplements pubmet Result, html, 2005.
6. Park K. Epiodermology of communicable disease, Perk's test book of preventive and social medicine, Bhanot Publishers. 2005; 1167:179-187.
7. Pinnet D. Lancet clean hands reduce the burden of disease. http;/www.Hygiene hand and clean water-Rehydration project.html. 2005; 366(9841):185-186.
8. United Nation (UN) Water and health in Mali. http;/www.hygiene hand and clean water-Rehydration project.html, 2006.
   Rama Rao MN, Ghose JB, Saha SK. Bhattacharya, Animal Halder, Chitra Chaterjee Breastfeeding practices in the rural community of district Darjeeling, West Bengal. http;/www.google.com. 2006; 25:2.
9. Sandara T. Pediatrics A Randomized controlled trial of multifaceted intervention including alcohol-based hand sanitizer and hand hygiene education to reduce illness transmission in the home. 2005; 116(3):587-594.