

## Research Article

## A study to assess the prevalence of diarrhoea and under five children's mothers' knowledge in management of diarrhoea at home with selected home remedies from selected areas of Navi Mumbai

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### Abstract

Diarrhea is often the result of a viral, bacterial or other type of infection. Diarrhoea is the major cause of mortality and morbidity among under five children. So it is important to prevent diarrhoea by use of proper home remedies which is cost effective, hence this study was undertaken to investigate knowledge of mothers. **Aim:** To assess mothers knowledge in relation to use of selected home remedies and its effect for diarrhoea and its association with demographic variables. **Method:** In this study descriptive explorative design was used for quantitative approach. A total of 100 mothers/caregivers of under five children participated in the study. **Result:** Majority of mothers of under children had lack of knowledge on effect of home remedies in management of diarrhoea. **Conclusion:** It is necessary to strive hard to spread awareness about the effect of home remedies on diarrhoea.

**Keyword:** Diarrhoea, Mortality, Morbidity, Descriptive explorative Design, Home remedies.

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### 1. Introduction

Nations most important and precious resource is its children who constitute its hope for continued achievement and productivity. Every child needs a caring conducive environment to grow into to a potentially healthy and the society all together play vital role in contributing to the maximum growth and development of a child. Worldwide study on children shows that a large number of children are in a very unhealthy and intimidating environment. The World health organization estimated that each year nearly 2 billion episodes of diarrhoea occur and that they lead to 4.6 million deaths among children under five. In tropical regions 15-40% of all the deaths among children is under five years and is related to diarrhoea. Since diarrhoeal disease is caused by 20-25 pathogens, vaccination through attractive disease prevention strategy is not feasible [1]. The strength of children to combat disease is weaker than that of the adults and hence they are unable to tolerate strong medicines. Besides this, at very small age the child is not able to discuss these symptoms clearly, so it is necessary to take at most care in choosing remedies for children. About 80% of people in

developing countries use traditional medicines for their health care, including the treatment of diarrhoea. Continues usage of traditional medicine by a large proportion of the population in developing countries is largely due to the high cost of western medications and health care. It is therefore important to identify and evaluate the safety and efficacy of available natural medications as alternatives to currently used anti diarrhoeal drugs [2].

A study to assess the effect of pomegranate skin extracts for treatment of rotavirus diarrhoea in 40 children ranging in age from 3 months to 7 years. The duration of diarrhoea in the pomegranate skin extract treatment group was 3 days, compared with 5 days in the control group ( $p < 0.001$ ). In the treatment group 8 of 20 (40%) children were diarrhoea free, 48 hours after admission to the hospital, compared with 1 of 20 (5%) in the control group ( $p < 0.001$ ). The administration of pomegranate skin extract in controlled doses shortened the duration of rotavirus diarrhoea and decreased the requirement for rehydration solutions [3].

Cross sectional study was carried by F. Ahmed and et al to assess the management of Diarrhoea in under five at Home and Health Facilities in Kashmir. A pretested interview was scheduled between January and December 2006, in villages of Kashmir Valley. The results of the study reveal that ORS use rate is low (24.4% and 8.4%) respectively in past and current episode. Cultural practices include harmful ones like starving to overcome the episode. The rate of Antibiotic use is higher with 77.9%. So the study concludes that knowledge of home remedies and ORS was less and there is a need to impart the education to the population [4]. A cross-sectional study was conducted by Amir Abdollah Ghasemi et al to assess the knowledge of Mothers in Management of Diarrhoea in under five Children, in Kashan, Iran 2013. A sample of 430 mothers who had at least one child aged below five years old was selected by cluster sampling. The mothers were asked to complete the 22 items questionnaire designed to evaluate their knowledge of diarrhoea. Some demographic characteristics such as age, number of children, education of the mother and her spouse and the source of knowledge also were recorded. Subsequently, the data analyzed using descriptive statistics and chi-square test. The study reveal that Twenty eight point eight percent 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. The study concludes that the mothers studied in this research had inadequate knowledge about diagnosis and treatment of diarrhoea. The educational programs must be an essential part to teach mothers on importance of proper use of home-remedies and ORS to reduce the mortality and morbidity rates in children [5].

A study on Home management of diarrhoea among under five in a rural community in Kenya. The aim of this study was to determine the perceptions of mothers/caregivers regarding the causes of diarrhoea among under five and how it was managed in the home before seeking help from Community Health Workers or health facilities. A total of 927 mothers/caregivers of under five participated in the study. Majority of the respondents 807 (87.1%) reported that their children had suffered from diarrhoea within the last 2 weeks before commencement of the study. Diarrhoea was found to contribute to 48% of child mortality in the study area. Perceived causes of diarrhoea were: unclean water 524 (55.6%), contaminated food 508 (54.9%), bad eye 464 (50.0%), false teeth 423 (45.6%) and breast milk 331 (35.8%). More than 70% of mothers decreased fluid intake during diarrhoea episodes. The mothers perceived wheat flour, rice water and selected herbs as anti-diarrhoeal agents. During illness, 239 (27.8%) of the children were reported not to have drunk any fluids at all, 487 (52.5%) drunk much less and only 93 (10.0%) were reported to have drunk more than usual. A significant 831 (89.6%) withheld milk including breast milk with the notion that it enhanced diarrhoea. The study concludes that there is need to develop and

implement interactive communication strategies for the health workers and mothers to address perceptions and misconceptions and facilitate positive change in the household practice on management of diarrhoea among under five [6, 7].

## **2. Method:**

In this research study, it organises all the components and deals with description of different step that will be adopted for assessing the knowledge of under five children mothers in relation to home management of diarrhoea. It includes research settings, sampling techniques, and tools for data collection, pilot study and plan for data analysis. Components of the study is organised in such a way that it will help in providing valid and appropriate answers to the problems that have been posed.

### **Research design:**

Descriptive Design, Explorative in nature. It will describe the prevalence of diarrhoea and explore mother's knowledge in use of selected home remedies like buttermilk, banana, pomegranate and poppy seeds, and explore the effect of these remedies on diarrhoea in under five children through semi structured interview schedule to mothers of under five children.

### **Setting of the study:**

In order to undertake to study, D. Y. Patil Hospital & Research, Nerul Navi Mumbai. The semi structured interview was conducted on mothers of under five children admitted indoor dept. and mother's accompanying the outpatient pediatric dept. Also the mothers of under five children from the suburban slum Shiraone village, Nerul Navi Mumbai consists of hutment areas.

## **3. Result:**

### **Sample size:**

100 mother's of under five children.

### **Sampling technique:**

### **Non-probability purposive sampling:**

The mothers of under five children will be chosen to be the part of the sample with the view to assess the prevalence of diarrhoea from D. Y. Patil Hospital and research centre indoors and out door dept. of Paediatrics unit. Also the mothers of under five children from the suburban slum Shiraone village, Nerul Navi Mumbai consists of hutment areas.

### **Inclusion criteria:**

1. Mothers whose children had the current episode of diarrhoea (previous 24 hours) and any past episodes of diarrhoea last 1 month.
2. under five children's mothers willing to participate in the study from Nerul, Navi Mumbai region.
3. Mother's who understand Marathi, Hindi and English.

### **Tools and methods of data collection**

#### **A semi structured interview schedule:**

The semi structured interview was conducted on mothers of under five children admitted indoor dept. and mother's accompanying the outpatient paediatric dept. A house to house survey will be conducted to assess the knowledge of mothers regarding the prevalence of diarrhoea and use of selected home remedies and its effects among children below five years of age in Shiraone Village Slum.

#### **Tool:**

##### **Section 1: Baseline pro-forma:**

Section 1 consisted of 6 items which provides baseline information or demographic data of the study subjects. It includes age, gender, type of family, education status of mother, occupation of mother and family income.

##### **Section 2: Semi structured questionnaire:**

The mothers of under five children were interviewed by using semi structured questionnaire which consisted of question on duration of diarrhoea, drugs used during diarrhoea, use of home remedies in diarrhoea

#### **Plan for data analysis:**

The data analysis is planned while developing the research plan this provides the researcher with an opportunity to summarize the finding meaningfully and draw conclusion about the findings. The data would be analysed by using descriptive and inferential statistics.

#### **Major findings of the study:**

- The majority (39%) respondents were from the age group of 1-2 yrs
- The majority (54%) respondents were males
- The majority (71%) respondents were from nuclear family
- The majority (37%) children mothers had higher secondary level of education
- The majority (70%) of children mothers were housewives

- 55% of children had diarrhoea for a week, 42% of children had diarrhoea for 24 hrs and 5% had diarrhoea for 1week to 1 month
- 66% of children received drugs during diarrhoeal episode and 34% did not receive any medication
- 75% of children received home remedies were as 25% of children were not given any home remedies
- Frequently used home remedies were ORS (15%), lemon juice (12%) and banana (6%)
- Effect of combination of medication and home remedies on diarrhoeal status was 77% of children had moderate diarrhoea which reduce to 59% and 10% of children had severe diarrhoea which had reduced to 1%
- Effect of home remedies on diarrhoea was 61% of children had moderate diarrhoea which reduced to 44% and 5% of children had severe diarrhoea which reduced to 1%

### **4. Discussion**

#### **Implications of the study:**

The findings of the present study may be helpful for future such studies. In this context, the findings of the study have valuable implications towards nursing education, administration and nursing research

#### **Nursing education:**

The healthcare delivery system at present is giving more emphasis on the preventive rather than the curative aspect. The nursing curriculum should include activities like preparation of booklets, documentary films, handouts, pamphlets, which can be given to health workers to circulate in community as well as to mothers attending the post natal clinics. Training programmes for nursing students should be conducted to enhance their knowledge about diarrhoeal management at home. The students must be motivated in spreading awareness about positive change in the household practice on management of diarrhoea among under five.

#### **Nursing practices:**

Nurses can assess the knowledge of mothers attending various clinics in hospital and in community regarding diarrhoeal disease. Thus various educational programmes can be conducted for the mothers based on the needs which will help in improving the mother's knowledge regarding home management of diarrhoea. Nurses can work in close collaboration with the health visitors, NGOs and other voluntary health agencies for promotion of use of home remedies in diarrhoea.

### Nursing administration:

Findings of the study can be used as a base while formulating various policies and programmes regarding management of diarrhoea at home. Nursing administrators should encourage their staff to arrange various educational programmes for mothers on management of diarrhoea at home. They should provide sufficient material, manpower, money, methods and time to conduct educational programmes. At the same time the administration can take various measures to arrange teaching sessions, in-service programmes and workshops for nursing staffs and students. Collaborative programmes can be arranged to improve the scope of this study.

### Nursing research:

The research studies helps in strengthening the existing body of knowledge and to find out more convenient alternatives or to update the knowledge. Thus nurses need to engage in various research studies in order to improve mother's knowledge about home management on diarrhoea and also to update the mothers about the existing or current recommendations in relation to best home remedy to reduce diarrhoea which in turn reduces the mortality and morbidity among under five children. The practice of use of ORS in the home management of diarrhoea was found to be good among a higher proportion of the mothers in this study though higher than what was obtained from other similar studies conducted in Nigeria, Pakistan and India. However, a Vietnamese study revealed a higher level of ORS use for diarrhoea disease management as compared to this study. The variation in the level of use of ORS by mothers in the management of episodes of diarrhoea across the various studies could have reasons such as difference in the levels of education, socio-cultural and access to information by the mothers responsible [8-10].

### Conclusion

Diarrhoeal disease is a major cause of morbidity and mortality among under five especially in rural and urban communities in developing countries. Home management of diarrhoea is one of the key household practices targeted for enhancement in the Community Integrated Management of Childhood Illness (C-IMCI) strategy. This study was mainly done to assess the knowledge of mothers of under five regarding home management of diarrhoea. The study has found that still there are mothers who are unaware of effect of home-remedies on diarrhoea which would curb the need of hospitalization. So it is important to facilitate positive change in the household practice on management of diarrhoea among under five.

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