



Knowledge and attitudes of mothers regarding use of Oral Rehydration Solution in management of diarrhea.

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ABSTRACT

Background: Globally, there are nearly 1.7 billion cases of diarrhoeal disease every year. Diarrhoeal disease is the second leading cause of death in children under five years old. It is both preventable and treatable. Key measures to treat diarrhoea include rehydration with oral rehydration salts (ORS) solution.

Aims: The aim of this study is to find out the knowledge and attitudes of mothers regarding use of ORS in management of diarrhea in an urban slum area.

Materials and methods: This cross sectional study was carried out on 400 mothers attending the OPD at urban health centre of the teaching hospital in Bhopal in Central India. Data was collected by using a semi-structured questionnaire which asked information regarding the knowledge of mothers about ORS, method of preparation, source of information about ORS and the role of ORS in the management of diarrhoea.

Results: Out of 400 interviewed mothers 74% were literate. Most of these belonged to the lower socio economic class. Only 156 knew the correct method of ORS preparation and its use. It was also seen that 48 mothers did not know about ORS. The most common source of information was health care providers.

Conclusion: The knowledge regarding method of use of ORS for management of diarrhoea was found to be inadequate in this study. More measures need to be adopted to improve this knowledge and make mothers aware about the use and availability of ORS.

Keywords: ORS, knowledge, diarrhoea.

1. INTRODUCTION:

Diarrhoeal disease is the second leading cause of death in children under five years old, and is responsible for killing around 760 000 children every year. Diarrhoea can last several days, and can leave the body without the water and salts that are necessary for survival. Most people who die from diarrhoea actually die from severe dehydration and fluid loss. Children who are malnourished or have impaired immunity as well as people living with HIV are most at risk of life-threatening diarrhoea. Diarrhoea is usually a symptom of an infection in the intestinal tract, which can be caused by a variety of bacterial, viral and parasitic organisms. Infection is spread through

contaminated food or drinking-water, or from person-to-person as a result of poor hygiene ¹.

Diarrhoeal disease is a leading cause of child mortality and morbidity in the world, and mostly results from contaminated food and water sources. Worldwide, 780 million individuals lack access to improved drinking-water and 2.5 billion lack improved sanitation. Diarrhoea due to infection is widespread throughout developing countries. In developing countries, children under three years old experience on average three episodes of diarrhoea every year. Each episode deprives the child of the nutrition necessary for growth. As a result, diarrhoea is a major

cause of malnutrition, and malnourished children are more likely to fall ill from diarrhoea. Interventions to prevent diarrhoea, including safe drinking-water, use of improved sanitation and hand washing with soap can reduce disease risk. Diarrhoea can be treated with a solution of clean water, sugar and salt, and with zinc tablets¹.

Timely management of the children with ORS has substantially declined the mortality and morbidity from acute infectious diarrhea².

2. MATERIALS AND METHODS

A cross-sectional descriptive study was carried out among mothers who attended the OPD at urban health centre attached to the medical college of Bhopal in central India during a period of 2 months (January-February 2013) to assess the knowledge and attitude regarding role of ORS in management of diarrhoea. A total of 400 mothers willing to participate in the study were enrolled in this study by using convenience sampling who had children of 6 months to 11 years of age while the mothers whose children were below 6 months and above 11 years of age were excluded from the study.

In present study, data was collected by using a semi structured questionnaire. The knowledge and attitude of the mothers pertaining to ORS was defined as awareness about the availability and preparation of ORS and its use in the management of diarrheal diseases. The questionnaire included questions concerning the knowledge about ORS, method of preparation and source of information about ORS and also the role of ORS in the management of diarrheal diseases. Data was also collected for socio demographic characteristics such as age, occupation, literacy. Socioeconomic status was based on modified Kuppuswamy scale for urban area.

3.0. RESULTS

Out of the total 400 interviewed mothers, only 96 were found to be working whereas remaining were housewives. In this study, majority of the mothers were literate (75) but most were educated only up to primary class level (244). In the current study, most of the respondents (314) belonged to lower socioeconomic class. Only 80 respondents belonged to the middle and only 6 belonged to the upper socioeconomic class.

| | | |
|----------------------|-----|------|
| Mother's education | | |
| No education | 100 | 25 |
| Primary | 244 | 61 |
| Secondary and higher | 56 | 14 |
| Socioeconomic status | | |
| Grade I | 72 | 18 |
| Grade II | 242 | 60.5 |
| Grade III | 80 | 20 |
| Grade IV | 6 | 1.5 |
| Grade V | 0 | 0 |

Table 1. Demographic characteristics of the subjects (n = 400)

In this study, most of the mothers were aware of the availability of ORS. Out of the 400 study participants, 243 mothers were aware that ORS is used to fulfill the deficiency of water in diarrheal diseases whereas only 24 respondents were aware that ORS is used to fulfill the deficiency of both water and salt in diarrheal diseases. It was also seen that 48 respondents were unaware about the use of ORS (Table 2).

| Knowledge attributes | Frequency (n) | Percentage (%) |
|-----------------------|---------------|----------------|
| Know about ORS | 352 | 88 |
| Know how to make ORS | 156 | 39 |
| Do not know about ORS | 48 | 12 |
| Think ORS is useful | | |
| Yes | 378 | 94.5 |
| No | 22 | 5.5 |

Table 2. Knowledge about ORS

In this study, only 22 respondents denied the usefulness of ORS in treating diarrhea. Out of the 400 participants only 156 knew the correct method of ORS preparation and its use whereas out of the remaining mothers who knew about ORS did not know the correct method of using ORS. Most of the mothers (256) were advised by the health care provider to use ORS in diarrheal diseases (Figure 1 and Figure 2).

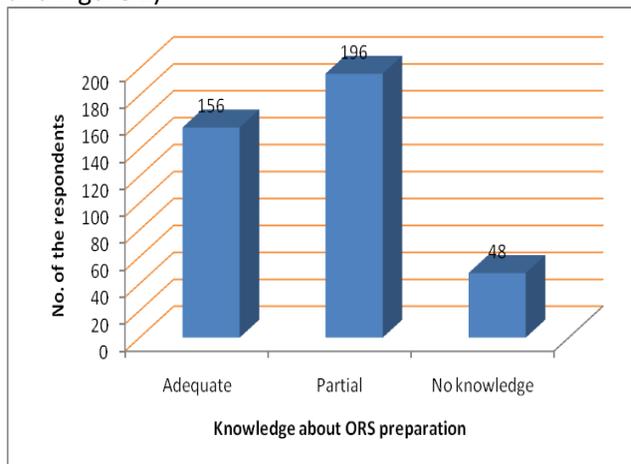


Figure 1. Knowledge about preparation of ORS

| Characteristics | Frequency (n) | Percentage (%) |
|------------------|---------------|----------------|
| Child's age | | |
| 6-11 months | 28 | 7 |
| 12-23 months | 39 | 9.75 |
| 24-35 months | 30 | 7.5 |
| 35 months-5years | 168 | 42 |
| >5years | 135 | 33.75 |
| Mother's age | | |
| 18-25 years | 66 | 16.5 |
| 26-30 years | 285 | 71.25 |
| >30 years | 49 | 12.25 |

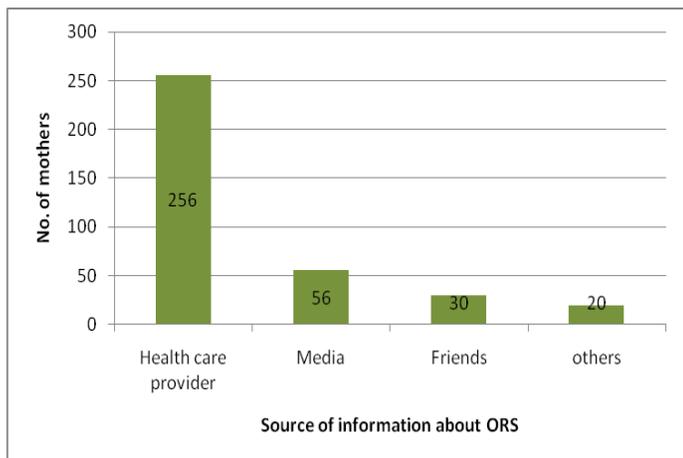


Figure 2. Source of information about ORS

4. DISCUSSION

Although use and availability of ORS can reduce the morbidity and mortality associated with diarrhoeal diseases it is far from being highly effective especially in developing countries due to lack of awareness about availability and use of oral rehydrating solution for management of diarrhoeas. Also complicating the issue is lack of understanding regarding the role of sanitation and hygiene in reducing the incidence of diarrhoea.

In present study, although 75% of the mothers were educated, only 156 knew the correct method of ORS preparation and its use whereas out of the remaining mothers who knew about ORS did not know the correct method of using ORS. However, literacy rate showed positive association with adequacy of ORS knowledge ($p < 0.001$). In fact, people adopt a wait and watch approach as it is believed the consumption of food and water increases the bulk of stools and does not provide rest to the intestine which is necessary for recovery from diarrhoea. Even some of the educated people do the same thing.

In current study, 94.5% mothers knew the advantage of using ORS in diarrheal diseases while 5.5% mothers were completely unaware of the implication of using ORS. Most of the mothers (256) were advised by the health care provider to use ORS in diarrheal diseases.

The results are somewhat different from the study carried out by Sultana A. et al in Rawalpindi who found out that 60% mothers were found to have adequate knowledge regarding the method of ORS preparation whereas the same information was observed to be partial and incomplete among 35.94% and 4.06% respondents although 61.87% mothers were belonging from middle social class³.

In a similar study by Ibrahim MM et al, it was suggested that ORS was mainly used by the mothers who were capable of allocating their time to health care⁴. It was seen in an educational intervention study in Nepal by Mukhtar Ansari et al that Educational interventions

brought about significant improvement in knowledge, attitude and practice at 1st, 2nd and 3rd follow-up. The median scores of knowledge, attitude and practice increased from 14, 7, 6 to 26, 9, 13, respectively, due to repeated interventions. Furthermore, interventions strengthened the correlation between knowledge, attitude and practice⁵.

5. CONCLUSION

The knowledge regarding method of use of ORS for management of diarrhoea was found to be inadequate in this study. Though many mothers are aware that it is useful most are not aware of its method of use. More measures need to be adopted to improve this knowledge and make mothers aware about the method of use and availability of ORS.

6. References:

1. World Health Organization. Diarrhoeal disease fact sheet. N° 330 April 2013. <http://www.who.int/mediacentre/factsheets/fs330/en/index.html> accessed on 10th April 2013.
2. Cezard JP, Bellaiche M, Viala J, Hugot JP. Medication in infectious acute diarrhea in children. Arch Pediatr 2007Oct; 14 Supp 3: S169-75.
3. Sultana A, Riaz R, Ahmed R, Khurshid R. Knowledge and Attitude of Mothers Regarding Oral Rehydration Salt. J of Rawalpindi Med Colg 2010 ;14(2):109-111.
4. Ibrahim MM, Aden AS, Omar HM, Wall S, Persson LA. Diarrhea among children in rural Somalia. Maternal perceptions, management and mortality. Ann Trop Paediatr. 1994; 14(3): 215-22.
5. Mukhtar A, Ibrahim MIM, Shankar PR. Mothers' Knowledge, Attitude and Practice Regarding Diarrhea and its Management in Morang Nepal: An Interventional Study. Trop J Pharm Res, October 2012;11(5):847-54.

Conflict of Interest: None Declared

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