

# Knowledge and practices regarding oral rehydration therapy among mothers in rural area of Vasind, India

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## ABSTRACT

The oral rehydration therapy is the keystone of National Diarrhoeal Disease Control Programme. The packets of oral rehydration salts (ORS) are available at the Primary health centres as well as in chemist shops. There are depot holders of ORS packets in the community too. Most of the times the health care workers do not emphasise the role, benefits and method of preparation of ORS. As a result of this mothers do not know the right method of preparation of ORS and do not understand the need to give ORS to the child. To study awareness about ORS, depot holders of ORS and importance of ORS To study knowledge about preparation of ORS solution. Mothers whose children were in the age group of 0-5 years were interviewed. One hundred forty five (89%) of mothers were aware about ORS. Only 39.31% of mothers knew that ORS replenishes the water lost during diarrhoea. 31.72% mothers felt that ORS stops loose motions. In spite of having correct knowledge of preparation many of them followed wrong practice of preparation. Demonstration of correct preparation of ORS solution should be inbuilt in the health education package of the Oral Rehydration Therapy for Diarrhoeal diseases. Health care providers must emphasise about the role of ORS in prevention of dehydration so that mothers give ORS to the child.

**Keywords:** ORS, Diarrhoea, role of ORS.

## INTRODUCTION

The clinical scientific discovery underlying the development of oral rehydration therapy occurred in the early 1960's with the discovery of the coupled sodium and glucose transport. Glucose given orally enhances the intestinal absorption of salt and water and is capable of correcting the electrolyte and water deficit.<sup>1</sup> This process continues to function normally during secretory diarrhoea whereas the other pathways of intestinal absorption of sodium are impaired.<sup>2</sup> The oral rehydration therapy is the keystone of National Diarrhoeal Disease Control Programme. It makes possible the treatment of children by mothers in their own homes. It reduces the need for costly intravenous fluid treatment.<sup>3</sup> Correctness of ORS preparation is vital. In order to be effective the packet has to be mixed with recommended amount of potable water. Wrong preparation hampers the prevention of dehydration and contributes to mortality and morbidity due to diarrhoeal diseases.

## MATERIALS AND METHODS

This study was done in the Vasind village of Thane district of Maharashtra, India which is the field practice area of the department of Preventive and Social Medicine of L.T.M.M.C and L. T. M.G.Hospital. The study was conducted over a period of 2 months (1<sup>st</sup> July to 31<sup>st</sup> August 2004).

According to the Community Needs assessment survey carried out in March 2004, the total number of mothers of children less than 5 yrs of age were 1055. 15% of these mothers were interviewed (N=163). The mothers were interviewed by the investigator using a pretested semi structured interview schedule.

## INCLUSION CRITERIA

Mother whose child less than 5 years of age had suffered from an episode of diarrhoea (passage of loose, liquid or watery stools > 3 times in a day) at least once in past 3 months.

Operational definition of correct knowledge of ORS preparation

In this study the term correct knowledge of preparation of ORS implies the preparation of ORS using the right amount of water and ORS powder.

## RESULTS

145 (89%) of mothers were aware about ORS. Out of these 102(70%) were aware of ORS packets to be prepared in 1 litre of water, 23 (16%) were aware about small sachets to be prepared in 200 ml of water and 20 (14%) were aware of both. Fig. 1 shows that majority of mothers received information about ORS from doctors

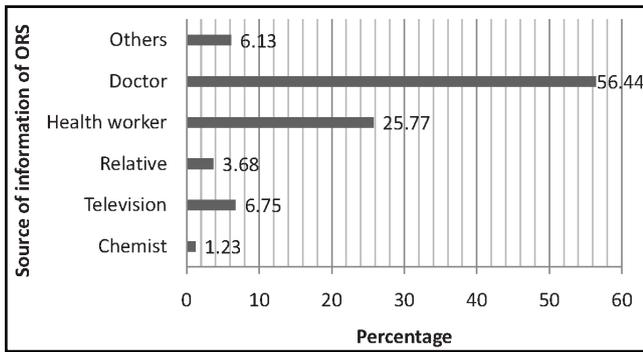


Figure no.1: Bar diagram showing the source of information about ORS among mothers

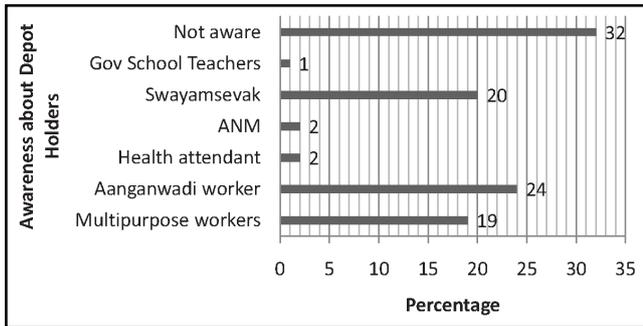


Figure no.2: Bar Diagram showing percentage of mothers aware of depot holders of ORS

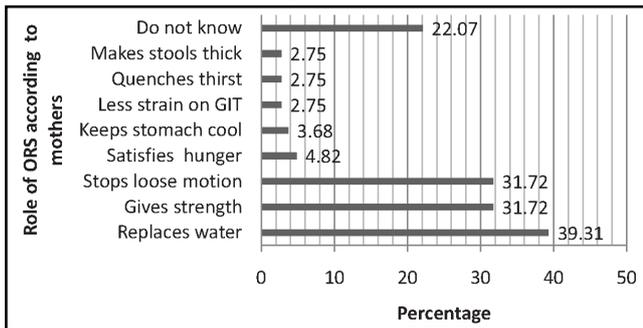


Figure no.3: Bar diagram showing the role of ORS according to mothers

and health workers. From Fig. 2 it is evident that 32% of mothers were not aware of depot holders in the community. The mothers were questioned about the role played by ORS in treatment of diarrhoea. Figure no.3 shows that 39.31% mothers had the information that it replaces the water lost during diarrhoea, 31.72 % mothers were under the impression that by giving ORS loose motions stop and 22% were not aware about the role of ORS. 2.75% of the mothers felt that by giving ORS the consistency of the stools would become thick. 122 mothers were aware about ORS packets to be prepared in 1 litre of water and few 43 mothers were aware of small sachets of ORS to be prepared in 200ml of water. Out of 122 mothers who were aware about ORS packets to be prepared in 1 litre of water, only 39 mothers had correct knowledge of preparation of ORS. In spite of having correct knowledge 20 mothers followed wrong practice of preparing ORS. Out of 43

mothers who were aware of small sachets 21 had correct knowledge of preparation yet 5 mothers followed wrong practice. Incorrect practices followed were dissolving partial contents of the packet in little water according to mother's own judgement. The reason for using partial content was that child is not able to finish entire solution in a day as a result of which ORS powder is wasted.

Out of 145 mothers, 128 mothers (88%) were aware about ORS prior to the episode of diarrhoea. Yet only 74 (51%) mothers gave ORS to the child when loose motions started and 54 (37%) mothers did not give ORS in spite of being aware.

## DISCUSSION

From the study it was observed that majority of mothers 89% were aware about ORS packets as compared to 45.3% in a study conducted by Datta in Calcutta<sup>(4)</sup>. The National Family Health Survey conducted in India in 1992-1993 shows that 43% of mothers were aware of ORS<sup>(5)</sup>. In another study conducted in Andhra Pradesh only 59.4% of mothers were aware about ORS<sup>(6)</sup>. Awareness of ORS was more in the current study as compared to that conducted in Nepal where only 36.3% of mothers knew about ORS<sup>(7)</sup>. But awareness does not imply that mothers have a correct knowledge and follow correct practice of preparing ORS. For ORS solution to be effective it is necessary to mix right amount of water. The current study findings were consistent with that conducted by V Bhatia et al in Chandigarh where 86.7% of mothers were aware of ORS but only 18.7% could tell the correct method of its preparation<sup>(8)</sup>. Study conducted in Haryana by K. Anand et al found that out of 145 mothers only 43 mothers (30%) had heard about ORS/SSS (salt sugar solution) and of these only 9.7% knew how to prepare it correctly<sup>(9)</sup>.

Another study conducted in rural Maharashtra found that 90.7% of mothers were aware of Oral rehydration therapy but only 60% correctly practiced it<sup>(10)</sup>. Results of a study conducted in Delhi in 1992 revealed that very few 10.8% mothers prepared the ORS correctly<sup>(11)</sup>. 32% of the mothers were not aware of the ORS depot facility. This result was similar to findings of Oral rehydration therapy campaign conducted by the department of Family Welfare Government of Andhra Pradesh<sup>(6)</sup>. On being questioned about the role of ORS in diarrhoea majority said that it stops loose motions. Because of this belief mothers expect that after giving ORS loose motions should stop and since this does not occur they discontinue giving ORS. Therefore health workers should emphasise that the role of ORS is to replenish the body fluids so that mothers continue giving ORS. Out of 145 mothers, 128 mothers (88%) were aware about ORS prior to the episode of diarrhoea and

out of these 128 only 57.8% gave ORS to their children. These findings were similar to the study conducted in Saudi Arabia where overall use of ORS was 53%<sup>(12)</sup>. Data compiled by UNICEF showed that in South Asia region the oral rehydration therapy use rate was 19% in 1993 and 69% in the year 2000<sup>(13)</sup>. In a study conducted in rural Bangladesh the ORS use rate was 74% in project area<sup>(14)</sup>.

Demonstration of correct preparation of ORS solution should be inbuilt in the health education package of the oral rehydration therapy for diarrhoeal diseases.

Health care providers must emphasise about the role of ORS in prevention of dehydration so that mothers give ORS.

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