

Compliance of Mothers in Home Management of Acute Diarrhea

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Increasing the acceptability, utilisation and knowledge of oral rehydration solution (ORS) is important in treatment of diarrheal disorders(1,2). However data regarding compliance of such advice, delivered through health centers or community education programmes, is scanty. The situation may vary from community to community and local data about the compliance of such advice is important to modify and improve mothers' participation. The present study assesses the compliance of mothers, of under-5 children with diarrhea and dehydration, to advice provided at the health center.

Subjects and Methods

This study was conducted in a village of east Delhi near NOIDA where UCMS runs a health center. Consecutive mothers of under-5 children attending the health

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center for acute diarrhea with some dehydration were given uniform advice for home-management of the child, after initial rehydration with ORS. Patients with history of blood in stool or any other illnesses requiring treatment other than ORS were not included. Initial treatment was started as per the guidelines of WHO. The advice was administered by a doctor at the health center according to a uniform protocol. Since the health center closes at 1 pm, the WHO guidelines in item No. 4 of Plan B and related section in Plan A(3) were duly considered and adapted. Advice included: (i) continuation and restoration of normal feeding; (ii) correct preparation and administration of the ORS; (iii) not to give any medicine for diarrhea, other than ORS; (iv) not to go to other agencies for medicines or intravenous fluids since they were not needed; (v) further consultation in case the condition of the child deteriorates or he develops new symptoms.

Details on the source of information to mothers regarding management of diarrhea were obtained. All mothers who were given the advice were followed-up after 2 days and interviewed in detail, by a doctor, to ascertain the compliance. They were asked to show how they prepared and administered ORS. The cases who sought treatment from other agencies because of deterioration were not considered as non-compliant. Mothers who sought treatment from other agencies in the absence of deterioration were, however, considered non-compliant. Patients whose condition deteriorated after the first visit and required referral to a hospital were excluded. The interview was conducted with a structured questionnaire and data "recorded on a pretested proforma.

Results

Of 164 mothers, 9.8% either stopped or reduced the frequency of normal feeding. Only 66 (40.2%) mothers were giving correctly prepared ORS while 13.4% mothers were not giving ORS at all. A minority of the mothers who were giving ORS (12.7%) administered it after every loose stool while most followed a frequency of convenience *e.g.* two to four times a day. Most mothers (57.8% of those giving ORS) administered ORS depending on acceptance by the child, while 39.4% followed the instructions given (*Table I*).

24.4% mothers administered some medicine, mainly antimicrobials (13.4%), against the advice of the health center; in 80% cases the medicines were prescribed by private practitioners. None of these patients had illnesses which justified the use of antimicrobial drugs. The patients received intravenous fluids despite the advice of health center.

The main source of information on management of diarrhea was the health center in 69.5%, television in 15.9%, radio and peer groups in 4.9% each and print media in 1.2%.

TABLE I-Compliance on continuation of Normal Feeding and ORS Administration

Variable	Number	%
<i>A. Change in Feeding Pattern, if any (n=164)</i>		
	4.9	
Stopped feeding 8		
Reduced frequency of feeding	8	4.9
Tried to continue normal feeding but the child did not accept	24	14.6
Continued normal feeding	124	75.6
<i>B. Acceptance and Preparation of ORS by mother (n=164)</i>		
	66	40.2
Giving correctly prepared ORS		
Giving in-correctly prepared ORS	76	46.3
Not giving ORS at all	22	13.4
<i>C. Frequency of ORS Administration (n=142)</i>		
	52	36.6
Thrice a day or less		
Four times a day or more	64	45.1
As many times the child had loose stool	18	12.7
No consistent pattern followed	8	5.6
<i>D. Quantity of ORS Solution Given Each Time (n=142)</i>		
	4	2.8
Less than 1/4 glass (< 50 ml)		
1/4 to 1 glass or more (50 ml to 200 ml or more)	56	39.4
As per the acceptance of the child	82	57.8

Discussion

Despite health education by the doctor, only 40.2% mothers were correctly preparing the ORS. Similar findings have been reported in a study conducted in the pediatric OPD in this hospital previously(4). In the present study 13.4% mothers were not giving ORS to the child. Researchers from Bangladesh report non-compliance to be as high as 80% at the community level inspite of health education(5). It is important that the health functionaries spend more time in convincing mothers about the benefits of correct use of oral rehydration therapy.

Almost one-fourth of the mothers administered some medicine, chiefly antimicrobials, for diarrhea even though the dehydration was mild to moderate and the doctor at the health center had advised against it. Most mothers believe that medicines or intravenous fluids must be given to stop diarrhea and if the health functionary refuses to prescribe medicine other than ORS she is likely to seek a second opinion. The WHO is stressing the need to curtail widespread use of antimicrobials and other medications in acute diarrhea(6). However doctors and paraprofessionals must be aware that unless supported by sustained efforts and motivation, a correct advice may be less attractive to the community than the incorrect one.

Contrary to the general impression that television is now the main source of information on community health, 69.5%

of the mothers in this study obtained information through health centers. The situation elsewhere in the country may be similar. It is often suggested that television spots are an effective way to popularize the standardized instructions on ORS as compared to the instructions give by the health staff(4), such instructions on the mass media are yet to reach and catch the imagination of most people. The health functionaries will continue to be a popular and effective source of health education.

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