

Knowledge, Attitude and Practice of Using ORS and Household Management of Childhood Diarrhoea

Acharya NC¹, Dash DK², Mohanty MD³, Agrawal P⁴, Dey P⁵

Abstract

Introduction: Diarrhoea is defined as the passage of three or more loose stools per day. Diarrhoea is one of the leading causes of childhood mortality in India. The objectives of the study were to assess household Knowledge, Attitude and Practice for prevention of Diarrhoea in children through preformed questionnaires. **Material and Methods:** Four hundred and sixty eight under five children were selected for study by Cluster sampling method. Background information, details of acute diarrhoea and treatment modalities were obtained from mother of the under five children. This was a hospital based study conducted at a tertiary care hospital, from 1st May 2017 to 30th December 2017. **Results:** About 70 % of the moms were between the age assemble 25-32 years and the vast majority of them were housewives (72%). A greater part (>66%) of the moms were having essential/auxiliary education. Learning with respect to different parts of the diarrhoea and ORS surprisingly extremely unacceptable. In the present examination it is seen that learning in regards to ORS in looseness of the bowels is more in educated mother than uneducated. Three sitting of Educational mediations realized huge enhancement of the middle scores of learning, state of mind and practice expanded from 9, 6, 3 to 19, 14, 8, individually, **Conclusion:** The household knowledge regarding method of use and preparation of ORS for management of diarrhoea was observed to be lacking in this investigation. More estimates should be taken to enhance this learning and make moms mindful about the planning and utilization of ORS.

Key words: Diarrhoea, Intervention, Knowledge.

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Introduction

Diarrhoea is still the second most vital enemy of kids all inclusive, with more than 800,000 under-fives kicking the bucket each year as indicated by UNICEF¹. The primary purposes behind diarrhoeal assaults among youngsters are polluted water, un-healthiness, insufficient sanitation, poor cleanliness and absence of vaccination¹. As per figures of the Health Ministry, in India, around 1.2 lakh youngsters younger than five capitulate to looseness of the bowels consistently¹. This means 328 loose bowels passing consistently and

13 consistently. To be seen from 11-23 July, the Health Ministry propelled the across the nation 'Increased Diarrhoea Control Fortnight' (IDCF)² under which different exercises have been arranged including visits by Accredited Social Health Activist (ASHA) specialists to every single such family unit which have kids younger than five. "ASHA specialists will visit all family units with kids beneath five years old for pre-situating the ORS. They will clarify its advantages. The significance of this movement is that ORS will be accessible in the family unit when required at the season of looseness of the bowels. Also, all wellbeing offices will have ORS corners which will persistently exhibit the best approach to set up the ORS blend. Diarrhoea remains one of the leading global causes of death among children under the age of five years. ORS is simple, highly effective, inexpensive and appropriate therapy for diarrheal dehydration and since the introduction of ORT in 1979, there has been a steady decline in deaths due to diarrheal diseases¹¹. Aim and objectives of this study were to assess household Knowledge, Attitude and Practice for prevention of Diarrhoea in Children through preformed questionnaires.

Materials and Methods

A cross-sectional descriptive study was carried out to assess the Knowledge, Attitude and Practice for household management of Diarrhoea in Children among mothers who attended the OPD at Institute of Medical Sciences and SUM Hospital Bhubaneswar over a period of eight months (1st May to 30th December 2017). A total of 468 mothers attended the paediatric OPD given their willingness to participate in the study. The mothers were enrolled in this study by using convenience sampling who had children of two months to five years of age. Children below two months, above five years and critically ill children needs ICU care were excluded from this study. In present study, data were 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 childhood diarrhoea including its household management, role of ORS, method of preparation and also source of information about the household management of diarrheal diseases.

Results

In age insightful conveyance of mother under 25 year is 18.37 % and 25 to multi year is 70 % (Table 1).

Add up to 468 moms were met, just 24 % were observed to work while remaining were housewives. In

this investigation 54(11.53 %) mother having no formal training and 98(20.94%) no of mother were tertiary taught (Table-2).

Most extreme no of mother fall under secondary education class (41.02%). In the current examination, the greater part of the respondents had a place with centre and lower financial category 209(44.65%) and 157(33.54) respectively. 102 (21.79%) respondents had a place with the upper financial class (Table 3).

In these examination 276 moms utilizes bubbled water for drinking and just 134 utilizations water sanitizer as a wellspring of water. As a preventive part Proper waste transfer by 198(42.30%), hand washing 176(37.60%) and utilization of sterile restroom is found in 296(63.24%) cases (Table 4).

Table 1: Age wise Distribution of mother's Population in the study

Age in Years	Mothers	(%)
18-24	86	18.37
25-28	172	36.75
29-32	156	33.33
>32	54	11.53
Total	468	100

Table 2: Educational status of mothers in the study

Education Mother	Frequency	% of Total
No Formal	54	11.53
Primary	124	26.49
Secondary	172	36.75
Tertiary	118	25.21
Total	468	100

Table 3: Socio-economic status of mother's family

Socio-economic status	Number	Percentage
Upper	102	21.79
Middle	209	44.65
Lower	157	33.54

Table 4: Distribution of Mothers according to preventive measures has taken against diarrhoea.

Preventive measures against diarrhoea	No. of mothers (n=468)	Percentage
Using boiled water for Drinking	276	58.97
Using water Sanitiser for Drinking	134	28.63
Proper hand washing	176	37.60
Using sanitary latrine	296	63.24
Proper waste disposal	198	42.30

In the present examination it is seen that learning in regards to ORS in looseness of the bowels is more in educated mother than uneducated gatherings. The consequences of training and learning are delineated in (Table 5 and 6) as pursues, No formal instruction 12(22.22%), tertiary 102(86.44%). Responses on the job of ORS were that it "diminishes water misfortune in looseness of the bowels," "decreases diarrheal frequency" and "renews water and electrolyte losses. Other different parts of ORS Knowledge i.e. correct preparation, Quantities of ORS, damage of giving excessively ORS and when to stop ORS is likewise better in well-educated mothers (Table 5 and 6).

As many as 103 (22%) members knew how to plan ORS legitimately and could show the strategy for planning ORS (Table 5) Essential substitution treatment for the runs at home given by number of moms as

pursues 186(39.74%) waters, sugar salt arrangement 192(41.02%) and ORS 236(50.48%). Other adjuvant liquid treatment given by the respondents are Pomegranate juice 78(16.66%) and coconut water 122 (26.40%) as shown in Table 7.

The dietary adjustment amid loose bowels is received by the investigation assemble moms as pursues, Continue bosom bolstering 289(61.75%), reduced ordinary eating regimen 46(9.82), increased standard eating routine 23(4.91%), greasy/slick nourishment 9(1.92%) and formula drain control is 189(40.38%) as in Table 7.

Basic learning in regards to cause, spread and counteractive action of the runs was extremely disappointing in our examination. Great learning in regards to cause, spread, and anticipation is 17.73%, 16.23% and 16.66% separately just (Table 8).

Table 5: Correlation between mother's education and their knowledge regarding ORS

Observations	Educational status of mothers	Number	Percentage
Role of ORS	No Formal(54)	12	22.22
	Primary(124)	36	29.03
	Secondary(172)	97	56.39
	Tertiary(118)	102	86.44
Preparation of ORS	No Formal(54)	8	14.81
	Primary(124)	42	33.87
	Secondary(172)	72	41.86
	Tertiary(118)	84	71.18
Quantity of ORS	No Formal(54)	6	11.11
	Primary(124)	39	31.45
	Secondary(172)	104	60.46
	Tertiary(118)	98	83.05
Harm of giving too much ORS	No Formal(54)	24	44.44
	Primary(124)	72	58.06
	Secondary(172)	109	63.37
	Tertiary(118)	95	80.50
Danger of keeping ORS for a longer period	No Formal(54)	23	42.59
	Primary(124)	76	61.29
	Secondary(172)	117	68.02
	Tertiary(118)	99	83.89
Stop ORS, if vomiting continues	No Formal(54)	7	12.96
	Primary(124)	34	27.41
	Secondary(172)	119	69.18
	Tertiary(118)	101	85.59
When to stop ORS	No Formal(54)	3	5.55
	Primary(124)	26	20.96
	Secondary(172)	107	62.20
	Tertiary(118)	93	78.81

Table 6: Knowledge of mothers regarding different aspects of ORS

Mothers' knowledge	Number	Percentage
Role of ORS solution in diarrhoea:		
Prevents dehydration	119	25.42
Either increases or decreases diarrhoea	193	41.23
No idea	156	33.33
Steps for the preparation & storage of ORS solution (out of 5 steps)		
Did not mention any step	102	21.79
One correct step	221	47.22
Two or more correct steps	145	30.98
Amount of ORS solution to be given for child below 2 years		
Correct volume (50–100 ml)	99	21.11
Incorrect volume	312	66.66
Do not know	57	12.17
Quantity of ORS solution to be given for child of 2 years or above		
Correct volume (100–200 ml)	89	19.01
Incorrect volume	314	67.09
Do not know	65	13.88
Harmful foods/fluids (out of 7 options):		
One correct response	168	35.89
Two correct responses	127	27.13
Three correct responses	106	22.64
Four correct responses	67	14.31
Which diarrhoea is more dangerous:		
Thin watery diarrhoea	44	9.40
Red or green diarrhoea	424	90.59

Table 7: Distribution of respondents by Types of Fluid Given at Home, feeding pattern and restricted foods

Observations	Number	Percentage
Water	186	39.74
Sugar salt solution (SSS)	192	41.02
Oral rehydration solution (ORS)	236	50.48
Pomegranate juice	78	16.66
Coconut water	122	26.40
Continue breast feeding	289	61.75
Reduce regular diet	46	9.82
Increase regular diet	23	4.91
Greasy/oily food	9	1.92
Formula milk powder feed	189	40.38
Only solid food	29	6.19
Only liquid food	67	15.31
Others	92	19.65

Table 8: Knowledge about cause, spread and prevention of diarrhoea or the reponnt

Distribution of respondents by knowledge	Number	Percentage
Cause		
Good	83	17.73
Average	286	61.11
Poor	99	21.15
Spread		
Good	76	16.23
Average	223	47.64
Poor	169	36.11
Prevention		
Good	78	16.66
Average	199	42.52
Poor	191	40.81
Home management of diarrheal disease		
Good	98	20.9
Average	192	41.02
Poor	178	38.03

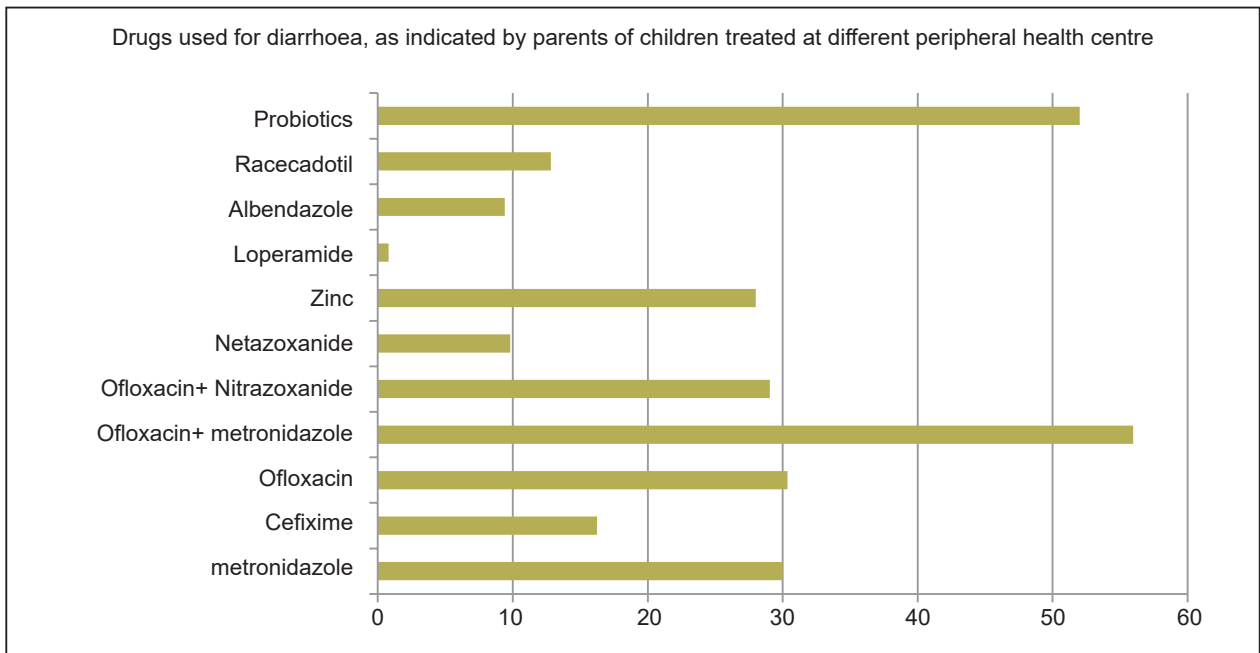


Fig 1: Showing drugs used for treatment of diarrhoea

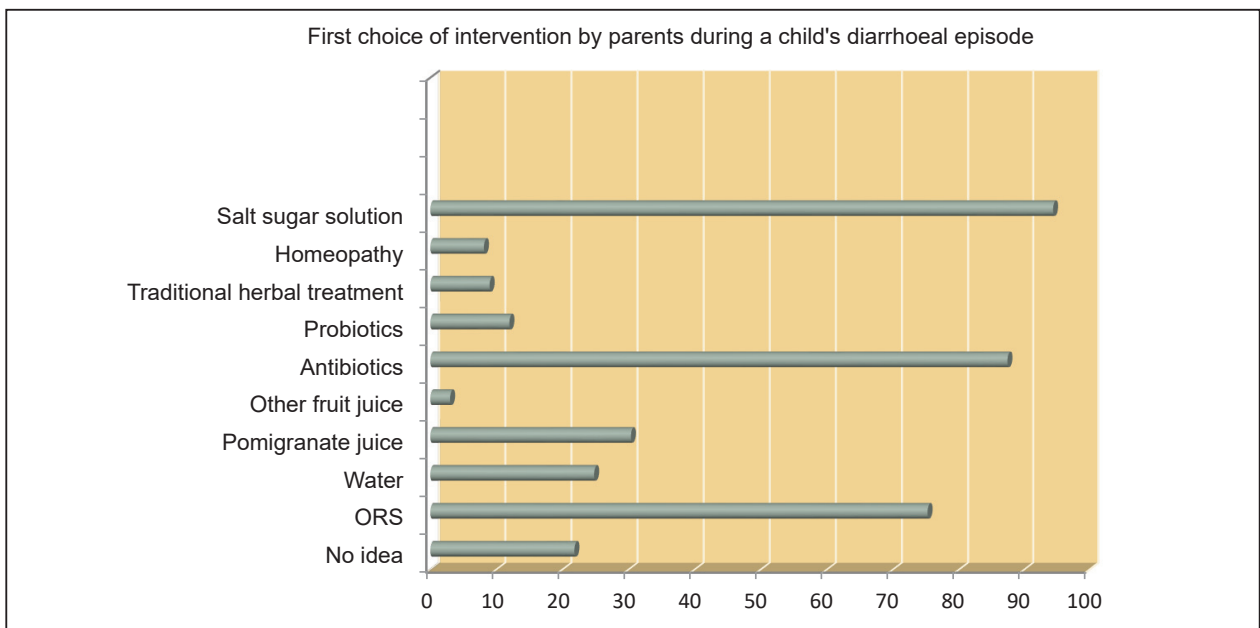


Fig 2: First choice of intervention by parents during a child's diarrhoeal episode

Of the aggregate members, 147 (31.41%) had learning in regards to hand crafted ORS; generally utilized natively constructed ORS by members were kanji, sugar and salt arrangement, buttermilk with salt and *daal ka pani* (lentil soup). Reactions of the investigation members to the survey with respect to treatment are outlined in Figure 1. Maximum number of mothers utilizes probiotics 64 %, Ofloxacin + metronidazole 57 % and Zinc 61%. Another vital perception in our examination in regards to first choices mediation to be taken amid looseness of the bowels is Sugar Salt Solution 88 %, Antibiotics 84%, ORS 70% and just water 22% (Figure 2).

Discussion

Diarrhoea stays one of the main worldwide reasons for death among youngsters younger than five years. ORS is straightforward, exceedingly compelling, economical and suitable treatment for diarrheal drying out and since the presentation of ORT in 1979, there has been an unfaltering decrease in passing because of diarrheal ailments¹. Diarrhoea is the frequent (typically characterized as at least three times in multi day) passage of liquid or soft stool^{2,3} It is the most widely recognized clinical indication of gastrointestinal infection and the second driving reason for death on the planet among

kids under five years old^{3,4,5}. Unfortunately, particularly in creating nations, because of absence of legitimate information in mother, with respect to accessibility, planning and utilization of ORS, this objective is a long way from accomplished. Improper sterile conditions, risky drinking water and absence of cleanliness are likewise in charge of not ready to diminish the occurrence of diarrhoeal ailments. The outcomes are fairly unique in relation to the investigation completed by Sultana A. et al. in Rawalpindi who discovered that 60% mothers were found to have satisfactory learning in regards to the strategy for ORS readiness though a similar data was seen to be fractional and deficient among 35.94% and 4.06% respondents albeit 61.87% moms were having a place from centre social class⁵⁶. It was found in an instructive intercession contemplate in Nepal by Mukhtar Ansari et al that Education realized huge enhancement in information, state of mind and practice at first, second and third development. The middle scores of information, disposition and practice expanded from 14, 7, 6 to 26, 9, 13, individually, because of rehashed intercessions. Besides, intercessions reinforced the connection between information, mentality and practice⁶⁷. Study directed by Rasanian et al.⁷⁸ have detailed that 69.8% of the members knew with respect to the job of ORS in looseness of the bowels and just 38.7% knew how to plan ORS legitimately. Dhadave et al.⁸⁹ have detailed that 65.7% of the members thought about ORS, and the mindfulness was more in literates when contrasted with uneducated people. Centered wellbeing instruction of moms has been appeared to enhance their insight and practice in the utilization of ORS in the diarrhoea^{9,10}. According to NFHS, in India 43% of ladies thought about ORS packets yet just 26% at any point utilized it^{9,10}. Similar results were obtained in the study by Widarsa KT et al.^{10,11} Though a large portion of the ladies knew about the ORS powder, just third of them knew the correct method for utilizing it. This extent is comparative when contrasted with the information accessible from NFHS III in which it is 30%^{11,12}. Knowledge in regards to the preventive measures is likewise insufficient among the moms. Over 60% of them couldn't recognize even a solitary measure from the choices gave to them. To strengthen the prior articulation, centered wellbeing training of moms in such manner might be of helpful^{9,10,12,13}. In our examination, about 45% of the moms were of the misguided judgment that getting teeth is the explanation behind advancement of the runs. The greatness of this misguided judgment is likewise archived in different examinations directed in India and in addition Iran, in these investigations the size is 64% and 48% respectively^{13,14,15}. A not very many moms had information in regards to the reason for looseness of the bowels. Just 17% of them gave rectify answer i.e.

disease as the reason for the runs. Cabatbat, et al in their examination led in Philippines reports 77%, 34% and 23% moms recognizing dangerous drinking water, inability to wash hands in the wake of pooping, and subsequent to taking care of dung separately as regular purposes behind diarrhoeal diseases^{14,15,16}. Knowledge with respect to the eating regimen to be pursued amid a scene of loose bowels is likewise restricted among the moms. Almost 40 % of the members said that eating routine should be limited amid the assault of looseness of the bowels. These perceptions are steady with the perceptions made in research directed by Suman, et al in Puducherry^{16,17}. In an investigation directed in south east area of Iran, Khalili, et al announced 81% and 58% moms recognizing risky water and unclean hands individually as reasons for diarrhoeal illness^{17,18}. For children on normal family diet, regular solid food and fluid intake was increased by (13.9% and 18.4%) and (7.6% and 16.5%) of the care-givers respectively. Continuous breastfeeding was practiced by all mothers (100%) while continued feeding with solid food and increased fluid was given in 81.00% and 61.30% respectively, in Yala community (Okoro, 2000). Different parts of network administration of youth diarrheal ailment, of specific concern are dietary limitations, utilization of anti-infection agents and acknowledgment of threat signs that require looking for expert help outside home (McLennan, 2002)^{17,18}. About (11.1% and 22.7%) and (28.5% and 40.3%) of the contemplated guardians, each confined greasy/slick sustenance and powdered drain separately. In the meantime around 15.4% and 9.3% of them confined equation feed to their children^{17,18}. Though moms knew about a few signs of dehydration, the level of learning about the real indications of lack of hydration because of looseness of the bowels was exceptionally poor. The examination directed in Tanzania and Indonesia likewise found comparative results^{18,19,20}. Sustaining ought to be proceeded except if generally minimal particular condition needs dietary change. In this study 63% were having good knowledge on sanitary latrine uses in relation to goo preventive measure of diarrhoea. About the proper source of drinking water 63% mothers had good knowledge and rest 26% and 11% were having average and poor knowledge respectively. Regarding preparation of ORS 30.98% mothers had good knowledge, 47.22% mothers had average knowledge and rest 21.79% had poor knowledge as depicted above. Similarly, as mentioned above 30.98% mothers were able to mention all the steps for the correct and complete preparation of ORS solution which is Similar to the other studies which found approximately 20% to 50% of the mothers were able to prepare ORS solution correctly and completely^{20,21,22,23}. This may be because of moms' absence of related

knowledge, an absence of legitimate training about the concerned issues and their ethnicity itself^{23,24}. With respect to utilization of ORS, maximum moms were inadequate with regards to learning of giving the right sum (67%). Conversely, the utilization of anti-infection agents, antifungals, anthelmintic and anti-diarrheal drugs is across the board in diarrhoea^{24,25,26,27} which is very like our present study (67%). The significance of breastfeeding amid loose bowels has been sufficiently highlighted by Zwisler G et al^{26,27}. A examine by Christopher S Yilgwan et al on predominance of the runs sickness and hazard factors indicated coordinate connection of pervasiveness of looseness of the bowels with low training and low financial status of mothers^{27,28}. It is necessary to strengthen parents' knowledge about diarrhoea and its treatment during hospital consultations,

but also during health campaigns and through the media^{27,28}.

Conclusion

It is very sensible to presume that the learning with respect to the planning and utilization of ORT by guardians in eastern Odisha region is inadequate. This investigation uncovers uncontrolled utilization of superfluous prescription i.e. anti-infection agents, probiotics and numerous all the more separated from the imperative ones like zinc and ORS. Preparation of Sugar Salt Solution and ORS should be demonstrated properly at health centres as a small group. Proper use of ORS in a diarrhoeal episode along with early recognition of dehydration and continuation of breastfeeding with other dietary treatment should be focused upon.

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