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Original research article

Knowledge, attitude, and practice of mothers of children of 6 months to 5 years age group receiving oral rehydration therapy and zinc

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Abstract

Background and objectives: To evaluate mothers of children under the age of five regarding knowledge, attitudes, and practices of acute diarrhoea, ORT, and zinc. To inform mothers about the usage of zinc, ORS, and other rehydration fluids. To encourage mothers to adopt new behaviours and attitudes towards the use of zinc and oral rehydration therapy in order to reduce morbidity and death associated with diarrhoea.

Method: Children aged 6 months to 60 months of both sexes with acute diarrheal disease were the subjects of a prospective study undertaken by the Department of Paediatrics, Mallareddy Medical College for Women, Hyderabad, Telangana, India between November 2021 and January 2023.

Result: Oral rehydration salts (ORS), which replenish fluid and electrolytes, was unclear to 70.2% of mothers. Only 18 out of 111 parents were able to prepare ORS, 30 were able to recognise dehydration symptoms, and 78 could suggest a substitute for ORS. After diarrhoea, 72.9% of mothers administered their children ORS. ORS was given by 51.3% of mothers the same day, 18.9% the following day, and 4.7% didn't. 72 percent of mothers thought ORS could be administered for a single day, 2.7% for two days, 2.7% indefinitely, and 24.3% weren't sure. 72.9 percent of lavatory users were clean.

Conclusion: Breastfeeding, sufficient nutrition, and particular attention during diarrhoea help children recover. Long-term, consistent message through the correct channels to promote excellent hygiene practices works best. Eliminating barriers to mothers providing their children ORS, other rehydration fluids and zinc can help children develop and flourish. Clinicians' activities affect mothers' learning and performance. This is one reason they trust antibiotic diarrhoea treatment. Thus, general practitioners, allied specialists, medical students, paediatric, internal, and infectious residents should be retrained.

Keywords: Oral rehydration therapy, infants, diarrhoea, zinc

Introduction

Acute diarrhea could be defined as an abnormally frequent discharge of semi -solid or fluid fecal matter from the bowel, lasting less than 14 days. The World Health Organisation estimates that 2 million children under the age of five die each year from diarrhoea, making it one of the leading causes of child mortality worldwide. Inadequate nutrition is closely linked to diarrhoea. Diarrhoea has a negative impact on a child's nutritional condition and can exacerbate current undernutrition. In other words, being undernourished increases risk of developing diarrhoea, and vice versa. It's linked to things like unhygienic conditions, lack of access to clean water, and lack of sanitation. Most cases of diarrhoea last fewer than 14 days, and most cases are caused by acute diarrheal diseases [1, 2, 3].

The sixth leading cause of death worldwide is infectious diarrhoea. To decrease the death rate, simple methods are available. Traditional treatments for diarrhoea include nursing, constant feeding, fluid therapy using Oral Rehydration Solution (ORS), and other widely used at-home procedures. Since the 1970s, it has been common practice to treat diarrhoea and avert potentially lethal dehydration with oral rehydration salts (ORS). Less than 40% of children with diarrhoea in developing countries received the proper treatment, despite some advancement over the past few decades. About 90% of individuals with diarrhoea respond well to drug-free treatments including oral rehydration therapy and maintained eating. Clinical investigations have demonstrated that the use of zinc as part of a paediatric diarrhoea treatment reduces the severity, duration, and risk that the condition would return [3, 4].

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Zinc has been included to the new World Health Organisation and United Nations Children's Fund (UNICEF) guidelines for treating childhood diarrhoea. Zinc supplements have shown useful in treating and preventing diarrhoea when given to children in less developed countries. When used for 10 to 14 days, zinc supplements have been proven to reduce diarrheal episodes by up to 70% and their duration by up to 90% when taken at a dosage of 20 milligrams per day (or 10 milligrams for infants under 6 months). Zinc has an impact on oxidative stress, immunology, gene expression, intestinal fluid flow, and mucosal integrity [5, 6].

The single most effective method for avoiding mortality in children due to diarrhoea is the use of oral rehydration salts (ORS) as part of oral rehydration treatment (ORT). Since the beginning of ORT in 1979, deaths from diarrheal diseases have been progressively reduced. However, ORT has not completely delivered on its promise to reduce mortality caused by diarrhoea. The mother's financial situation, educational background, and level of parenting knowledge are the main contributors to this. Most mothers struggle to comprehend the importance of giving their children more fluids during an acute case of diarrhoea and do not properly mix commercially supplied ORS. Similar to zinc syrup, which is widely accessible and provided gratis as part of the National Rural Health Mission (NRHM), very few individuals actually utilise it [7, 8].

According to data from 2007, 68% of the nations assessed have reduced their use of oral rehydration treatment (ORT) for children under three who had diarrhoea. Insufficient knowledge about the origins, symptoms, and treatments of their children's disease exists among mothers, according to numerous studies on mothers' knowledge of the right foods for children with diarrhoea. It was discovered that only 20.4% of participants knew that NRHM offers free zinc syrup, which is advised for the treatment of diarrhoea. These results are an improvement over those reported by Singh *et al*. (only 4.33% of people), hence [8, 9].

The term oral rehydration therapy (ORT) has changed throughout time to refer to a broader range of medical procedures. Early 1980s definitions of ORT referred to it as the UNICEF/WHO-recommended remedy. The official preparation was updated in 1988 to include suggested home fluids because it is not always simple to access. It underwent yet another revision in 1988 that allowed continuous feeding as a way of management. The definition of ORT as an increase in intravenous fluids changed in 1991. Increasing intravenous fluids and maintenance feeding were included to the criteria of ORT in 1993, which is when it was last updated [9, 10].

The World Health Organisation has produced guidelines for the application of oral rehydration therapy in the management of diarrhoea. Oral rehydration therapy can prevent death and dehydration. Children's nutrition and growth have been found to be improved by regular use of oral hydration products based on glucose and healthy meals. Because oral rehydration therapy is effective at saving lives at a cheap cost, both national and international agencies have promoted its usage [10].

The World Health Organisation (WHO) claims that the single most important component of effective case management is health education. It has the ability to create constructive communication between the health services and the community by better empowering families to recognise the warning signs of childhood diarrhoea and to encourage good and early care. Since oral fluid therapy is based on the fact that oral glucose enhances intestinal absorption of salt and water, the electrolyte and water imbalance can be addressed. The body's capacity to absorb salt and water is accelerated by oral rehydration treatments. A number of factors have been examined and found to have greatly improved, including the severity of the disease, the volume of fluid lost from vomiting and diarrhoea, and the efficiency of these treatments.

The official guidelines for what to be contained in packets of low-sodium oral rehydration salts (ORS) are updated and maintained in collaboration with WHO and UNICEF. These standards, which were most recently updated in 2006, are used by producers of ORS packets sold commercially. The low-sodium ORS has an overall osmolarity of 245 mmol/L. Current WHO/UNICEF guidelines recommend starting ORT at home with "home fluids" or a home-prepared "sugar and salt" solution at the first sign of diarrhoea. The supplied fluids must have salt and sugar in the proper proportions. Sugar must be present in the supplied fluid as the SGLT1 transporter connects salt absorption with sugar absorption in the colon. However, excessively sweetened beverages like "softdrinks" should be avoided because they might cause the body to lose water to the intestines. A newborn can be given rehydration solution using a syringe without a needle. For children under two, a teaspoon every minute or two is acceptable. Older children and adults can start drinking straight from a cup. Vomiting is frequent during the first two hours of rehydration therapy, but it typically has little impact on the result because the majority of the fluid is still absorbed [10, 11].

Material and Method

Between November 2021 and January 2023, 228 patients (6-60 months old) of both sexes with acute diarrheal illness were investigated in a prospective study at the Department of Paediatrics at Department of Paediatrics, Mallareddy medical college for women, Hyderabad, Telangana, India.

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Inclusion criteria

1. Children between the age group of 6 months and 5 years.
2. Children with diarrhoea.

Exclusion criteria

1. Children less than 6 months or older than 5 years.
2. Children with persistent diarrhoea.
3. Children with dysentery.
4. Children with systemic disease.

Methodology

All children with acute diarrhoea admitted to the paediatric ward will be determined if they satisfy the inclusion criteria. Patients who fulfil the above criteria will be considered in the study. After interrogating the mothers, a brief clinical examination and medical history will be performed. Before continuing to open-ended questions, we will consult a pre-made proforma that includes a questionnaire and patient history.

The purpose of these inquiries is to assess maternal knowledge. These inquiries will be posed in the mother's native tongue, allowing her to comprehend them. We will instruct mothers on how to safeguard children from the health risks associated with diarrhoea following a knowledge assessment. Our objective is to encourage mothers to adopt a more favourable view of ORT and zinc consumption.

Result

Table 1: Age distribution

Age Group	Number of Patients
6-12 month	132
12-24 month	78
24-36 month	11
36-48 month	4
48-60 month	3

There were 132 patients between the ages of 6 and 12 months, 78 between 12 and 24 months, 11 between 24 and 36 months, 4 between 36 and 48 months and 3 between 48 and 60 months.

Table 2: Gender distribution

Gender	Number of Patients
Male	117
Female	111

There were 228 individuals between the ages of 6 months and 60 months with diarrhoea that had lasted fewer than 14 days; 117 were male and 111 were female.

Table 3: Education status

Education of Mother	Number of Patients
Illiterate	98
Primary	61
Upper Primary	33
Secondary	27
Senior Secondary	7
BA	2

As maternal education levels increase, the patient load reduced. There were 98, 61, 33, 27, 7 and 2 cases of acute diarrheal disease among children with no formal education, primary education, upper primary education, secondary education, and a bachelor's degree, respectively.

Table 4: Dehydration degree

Degree of Dehydration	Number of Patients
No	111
Some	102
Severe	15

In 228 patients, 111 showed no evidence of dehydration, 102 showed mild dehydration, and 15 showed severe dehydration.

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Table 5: Education status

Education Status	Number of Mothers
Educated	3
Illiterate	12

There were no cases of severe diarrhoea in the offspring of BA pass mothers. These mothers were all unaware of the symptoms of severe diarrhoea. None of the mothers gave ORS before taking their child to the doctor, despite the fact that six of them knew how to make it. In addition, nobody understood the importance of administering ORS and when it should be given to youngsters. Only 6 people out of 15 had a proper understanding of how to administer the drug. Three out of the six mothers who were evaluated were aware that diarrhoea can cause malnutrition in children. Every mother cleansed her hands after using the lavatory, but only 6 of them used soap. Only three people in the sample washed their hands before eating. Nine families relied on pond water, while the remaining two and four families got their water from tube wells and hand pumps, respectively.

Table 6: Use of handwash

Handwash Before Food	Number of Patients
Yes	3
No	12

Four out of the fifteen infants were breastfed alone. 40% of the mothers surveyed reported using soap to wash their hands after using the loo. 80% of the severely dehydrated children were from rural areas.

Table 7: Resident place

Place of Residence	Number of Patients
Rural	12
Urban	3

Table 8: Weaning mode

Mode of Weaning	Number of Mothers
Bottle feed	9
Katori-spoon	6

Nine out of every 15 women used a bottle during weaning.

Table 9: ORT administration

Administration of ORT	Number of Patients
The same day	27
Next day	36
Did not administer	39

Of the 102 mothers surveyed, 39 (38.2%) did not give their children any form of oral rehydration therapy (ORT), 35.2% provided their children ORT the day after diarrhoea, and only 26.8% gave ORS on the same day.

Table 10: Residence place

Place of Residence	Number of Patients
Rural	42
Urban	48
Urban Slum	12

Nearly half of those experiencing mild dehydration remained in populated areas.

Table 11: Source of water

Source of Water	Number of Patients
Tube well	21
Hand pump	27
Supply water	48
Pond	6

Twenty-one homes were serviced by tube wells, twenty-seven by hand pumps, forty-eight by supply water, and six by pond water.

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Table 12: Gender distribution

Gender	Number of Patients with Some Dehydration
Males	42
Females	60

Table 13: Residence place

Place of Residence	Number of Patients
Urban	51
Rural	45
Urban slum	15

Table 14: Gender distribution

Gender	Number of Patients
Females	45
Males	66

Table 15: Diarrhoea caused malnutrition in mothers

Diarrhea Causes Malnutrition	Number of Mothers
Yes	84
No	27

Table 16: Hand wash status

Hand Wash after Defecation	Number of Mothers
Ash or sand	15
Soap	96

Table 17: Water source in patients

Source of Water	Number of Patients
Tube well	30
Hand pump	30
Pond	3
Supply water	48

Table 18: ORS administration

Administration of ORS	Number of Mothers
The next day	21
Same day	57
Did not	33

A total of 70.2% of mothers were incorrect in their assumptions about the purpose of oral rehydration salts (ORS), whereas 24.3% correctly identified its role as fluid and electrolyte replacement. Of the 111 mothers surveyed, only 18 could make ORS, 30 could recognise the symptoms of dehydration, and 78 could name an alternative to ORS. After diarrhoea, 72.9% of mothers knew to give their children ORS right away. Of the mothers who given ORS, 51.3% did so the same day, 18.9% did so the next day, and the remaining 4.7% didn't. Seventy-two percent of mothers believed ORS could be administered for only one day, whereas 2.7% believed it could be given for two days, another 2.7% believed it could be given until it ran out, and 24.3% were unsure. Seventy-two point nine percent of people who used restrooms did it in a sanitary manner.

Discussion

In our study, there were 132 patients between the ages of 6 and 12 months, 78 between the ages of 12 and 24 months, 11 between the ages of 24 and 36 months, 4 between the ages of 36 and 48 months, and 3 between the ages of 48 and 60 months. Mohsin *et al*. discovered that 26% of the children surveyed (10 days to 5 years) were younger than six months, 43% were between six and twelve months, and 29% were between one and five years. According to a study by Uchendu *et al*., 106 patients were between 0 and 11 months of age (67.9%), 46 patients were between 12 and 24 months of age (29.5%), and only a handful of infants with diarrhoea were between 25 and 59 months of age. 117 males and 111 females aged 6 months to 60 months were included in our study of 228 patients with diarrhoea lasting less than 14 days. In both the Mohsin *et al*. and Uchendu *et al*. studies, healthy participants outnumbered female participants. Our research revealed that mothers with higher levels of education and health knowledge had fewer children. Acute diarrhoea affected 98, 61, 33, 27, 7 and 2 children in the illiterate, primary,

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upper primary, secondary, senior secondary, and BA pass groups, respectively. There are substantial links between maternal education and child health. Scientists Ali M. In their survey, *et al*. found a substantial correlation between maternal literacy and their knowledge of ORT. Education level has an enduring impact on a mother's ability to learn about and provide ORT. Due to her lack of education, the mother's ability to use ORS to prevent diarrhoea-induced dehydration appears to be limited. Merrich discovered that mothers with higher levels of formal education were more likely to treat diarrhoea [12, 13].

Similar research was conducted by Thamanna *et al*. Over fifty percent of the 250 mothers who participated were in their twenties. Only 47 mothers among the participants held paid employment, and 187 (74.8%) were aware that ORS can be used to treat diarrhoea. (p=0.0027 and 0.0016, respectively). Mothers with higher levels of education were more aware of the significance of ORS and how to correctly prepare it than those with lower levels of education. The level of maternal education was found to be correlated with this level of knowledge (p=0.001); sixty percent of mothers were found to have adequate knowledge of ORS. Rasania *et al*. discovered that 69.8% of study participants were aware of the need for ORS in the treatment of gastroenteritis, but only 38.7% knew how to properly prepare ORS. According to Dhadave *et al*., 66.7% of participants were aware of ORS, with higher rates of awareness among literate participants than illiterate participants. According to Thamanna *et al*., 38% of respondents heard about ORS through interactions with medical professionals. However, Dhadave *et al*. found physicians were the primary source of information for approximately 90 percent of respondents. Similar to what Dhadave *et al*. observed, 129 (51%) of the mothers in Thamanna *et al*.'s study knew how to construct their own ORS [14, 15, 16].

Singh *et al*. discovered a higher rate of familiarity with DIY ORS (73.72%). A total of 84 participants (33.6%); more non-literate mothers held a false belief about ORS than literate mothers (p=0.17). Rasania *et al*. discovered that 29.3% of study participants had an incorrect understanding of ORS. Only 20.4% of respondents were aware that zinc syrup has been recommended for the treatment of diarrhoea and is available through NRHM. This is a substantial advance over the results discovered by Singh *et al*. (only 4.33 percent of participants). A. Ghatam *et al*. 62% of respondents indicated familiarity with oral rehydration salts. Nonetheless, only 58% of respondents concurred that ORS is beneficial, and only 54% could identify the condition for which ORS is used. 62% of respondents concurred that ORS can be administered for longer than 24 hours. And 34% concurred with the myth that ORS should be discontinued if diarrhoea or nausea persist. Even though ORS awareness was high, knowledge gaps about its use and prevalent misunderstandings persisted, as evidenced by the preceding findings. Education levels of mothers were found to have a significant impact on their children's exposure to ORS. Consistent with the findings of Rasania SK *et al*., who found that only 38% of mothers knew the proper preparation method for oral rehydration salts (ORS) in the prevention of diarrhoea-induced dehydration, the present study confirms that mothers' low levels of literacy hinder their ability to use ORS effectively [16, 17].

Similar results were observed by Dhadave MM *et al*., who found that 65.7% of mothers knew about ORS solution. They also found that the mother's education level and occupation were significantly related to this knowledge. Similarly, 88.2% of participants in a study conducted by Eashin Gazi *et al*. 60 indicated that they were aware that ORS could be manufactured and administered within 24 hours. However, only 48.1% knew how to prepare ORS, and only 65.8% knew the proper dosage for ORS administration. Thamanna *et al*. found that only 119 (47.6%) mothers knew how to properly produce ORS, while 146 (58.4%) mothers knew about the role of ORS in diarrhoea and 129 (51.6%) mothers knew about homemade ORS.In contrast, Saurabh S *et al*. found that nearly four out of five mothers were familiar with oral rehydration solution (ORS) and its use. Nearly 40 percent of mothers in the study by Thamanna *et al*. discovered about when ORS should be discontinued and whether it should be discontinued if the child continued to vomit or have diarrhoea. The results indicate that mothers with higher levels of education had a more comprehensive understanding of ORT. Low use of oral rehydration salts (ORS) in the treatment of diarrhoea is associated with illiteracy, which increases the risk of dehydration. After receiving targeted health education, mothers' knowledge of and utilisation of oral rehydration salts (ORS) for diarrhoea improved. This further demonstrates the importance of maternal education in reducing diarrhea-related mortality and morbidity [18, 19].

The significance of mothers' education was also highlighted by our research. Only three of the 15 severely dehydrated children had mothers with at least a primary school education; the rest were all raised by caretakers who were illiterate. There were no cases of severe diarrhoea among BA pass mothers' progeny. 44% of children who were marginally dehydrated had illiterate mothers. Again, none of the infants of BA pass mothers exhibited dehydration symptoms. It has been stated repeatedly that if mothers had more information, they could treat their infants with diarrhoea more effectively. However, Ghasemi *et al*. argue that knowledge alone is insufficient to guarantee proper application. Parents and caretakers can avoid dehydration from diarrhoea if they have a better understanding of the relationship between the two. According to our study, only 2.6% of mothers of severely dehydrated children, 7.4% of mothers of moderately dehydrated children and 7.8% of mothers of children with no dehydration symptoms knew how to prepare Oral Rehydration Solution. The findings demonstrate that a lack of

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education exacerbates dehydration in children [20, 21].

86.8% of the 198 infants in our study were breastfed exclusively. Only 1.7% of children in the severely dehydrated group were exclusively breastfed, compared to 39.4% and 45.6%, respectively, in the some dehydration and no dehydration groups. Datta *et al*. discovered a similar rate (80%) in rural Wardha, Maharashtra. Ali *et al*. suggested that enhancing maternal knowledge and sustaining breastfeeding can increase the efficacy of oral rehydration therapy. Due to a paucity of information, however, many communities, particularly during bouts of diarrhoeal disease, did not recognise the value of breast feeding [20].

In the rural regions of Sudan, Ahmed *et al*. discovered that 45 (68 of 152) illiterate women and 30% (26 of 87) literate women stopped breastfeeding their infants when they became ill with diarrhoea. According to research conducted by Khalili *et al*., 64% of breastfeeding mothers increased their feedings when their infants had diarrhoea. While 33.7% of nursing mothers reported diluting their milk because of diarrhoea, only 2.3% stopped breastfeeding entirely. Chronic diarrhoea readily perpetuates malnutrition. According to our research, only 99 of 228 mothers (43.4%). Only 3 of the severely dehydrated mothers (15%), 12 of the partially dehydrated mothers (102%) and 84 of the non-dehydrated mothers (111%) were aware that malnutrition worsens diarrheal disease. Overall, 52% of the mothers washed their hands prior to consuming. Only 3 of 15 mothers whose children were severely dehydrated washed their hands before consuming, compared to 64.7% of mothers whose children were somewhat dehydrated and 73.0% of mothers whose children were not dehydrated. Datta *et al*. found that 59% of mothers in the rural districts of Wardha regularly washed their hands with detergent and water before feeding their children, but only 5% and 1% did so before preparing meals. Our research revealed that out of one hundred households, 18 utilised pond water, 53 utilised tube wells, 61 utilised manual pumps, and 96 utilised municipal supplies. The data support Datta's conclusion that consuming water from a hand pump or pond is associated with an increased risk of diarrhoea. Six of the eight children who experienced more than four episodes per year obtained their water from a hand pump, while the remaining two obtained their water from a reservoir [20, 21].

In our severely dehydrated group, nine families drank water from ponds, while two families used tube wells and four families used manual pumps. In the group affected by mild dehydration, 21 residences relied on tube wells, 27 on manual pumps, 48 on supply water, and 6 on pond water. The majority of mothers (93.13%) in a study by Rokkappanavar KK *et al*. reported having a strong understanding of diarrhoeal illnesses according to the WHO description. Few mothers were aware of the causes of their child's incontinence. Infection is the genuine cause of diarrhoea, but only 0.5% of respondents gave that answer. In a study by Khalili *et al*., 81% of mothers admitted that unclean hands and contaminated water were responsible for their children's diarrhoea. The most common causes of diarrhoea in children under the age of five were exposure to contaminated water (77%), failure to cleanse hands after defecating (34%), and handling faeces (23%). Surprisingly, only 15% and 6% of mothers in an earlier Indian survey were aware that diarrhoea could be caused by contaminated water and environmental pollution, respectively. Nearly one-third of the mothers in our survey falsely believed that their child's incontinence was caused by teething. Other studies conducted in India and Iran corroborate the widespread nature of this misunderstanding, finding prevalence rates of 64 and 48%, respectively. A small number of mothers believed that their children's diarrhoea was caused by their ingestion of spicy foods. This issue necessitates enhanced health education [22, 23].

Many of them believed that contaminated water and food were to blame for the spread of gastroenteritis, but more than half were unaware of the role contaminated hands play in the spread of disease. Previous research has demonstrated that educating mothers specifically about their health is beneficial. In addition, the mothers lack of sufficient knowledge of the preventative measures. More than half of them were incapable of identifying any of the measures accurately. It has been suggested that maternal-specific health education could be beneficial in this area. However, few mothers know what to feed their children with diarrhoea. Nearly half of the participants predicted incorrectly that they should restrict their food intake during diarrhoea. Suman *et al*.'s research in Puducherry yielded results consistent with these findings [23, 24].

The general public's lack of knowledge regarding the benefits of exclusive breast feeding for both preventing and treating diarrhoea is another significant finding of our research. Multiple other studies have discovered similarly low levels of awareness. Even though some mothers still use bottles, the majority do not sterilise them properly at home. These actions increase the risk of diarrheal illness. The majority of the women had heard of ORS powder, but only about half knew how to use it correctly. Compared to the data provided by NFHS III, where the percentage lies at 30%, this percentage is significantly higher. Many respondents said they would administer ORS to their ill child whenever they deemed it necessary. There should be communication at altering this unhealthy behaviour [24, 25].

The World Health Organisation (WHO) recommends allowing the child to first attempt the ORS solution. Approximately 20% of the females in our study did this. It is encouraging that many mothers were able to treat diarrhoea episodes in their children with a combination of ORS and household remedies. Contrast this with the trend of mothers seeking professional assistance as opposed to initiating

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ORT at home. Such discussions might result in the inappropriate use of antibiotics in minors. Given that Rotavirus is believed to be responsible for nearly 150,000 diarrhoea-related fatalities among children under the age of five in India, this information is particularly pertinent. A modest proportion of children with diarrhoea were administered zinc solution. The majority of mothers who administered zinc to their infants did so after consulting with medical professionals. It's a plus that the majority of patients will be administered zinc solution during the consultation, but it's also crucial to raise awareness of the benefits of home-based ORT for preventing and treating dehydration.

Children given zinc supplements during and after an episode of diarrhoea had a 24% shorter duration of symptoms, a 15% lower incidence of diarrhoea, and a trend towards fewer hospital admissions due to diarrhoea, according to a community-randomized trial conducted in Bangladesh on the role of zinc in the management of childhood diarrhoea. In addition, zinc therapy may be more effective than the current recommendation of oral rehydrate therapy alone in preventing dehydration by reducing the duration of diarrhoea. As recommended by the World Health Organisation (WHO) and the United Nations Children's Fund (UNICEF), children with diarrhoea should consume at least twice the daily prescribed amount of zinc (10-20 mg). Oral rehydration solution (ORS) treatment for diarrhoea reduces dehydration-related mortality. In terms of reducing infant mortality, zinc supplementation has the potential to reduce the duration and severity of diarrhoea. Zinc supplements may abbreviate the duration of diarrhoea in children aged six months and older, according to a Cochrane analysis of 24 trials involving more than 9000 children [25].

Conclusion

Children are restored to health by three primary factors: continued breastfeeding, provision of adequate and appropriate nutrition, and special attention during episodes of diarrhoea. It has been demonstrated that the most effective method of promoting good hygiene practices is through long-term, consistent communication through the appropriate channels. Eliminating any obstacles that may prevent mothers from giving their children ORS, other rehydration fluids, and zinc is an obvious method to promote healthy growth and development in children. It is essential to remember that the actions of doctors and other health care professionals in clinics have an effect on mothers' capacity to learn and perform. This is one of the primary reasons why they have such faith in antibiotic treatment for gastroenteritis. As a consequence, it is recommended that retraining programmes be developed for general practitioners and allied specialists, as well as medical students, paediatric, internal, and infectious residents.

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