

Assessment of Mothers Practice among Using Oral Rehydration Solution for Their Children with Diarrhea in Kerbala Pediatric Teaching Hospital

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Abstract

Diarrhea continues to pose a great threat to children under the age of five, especially in third world countries or countries that suffer from the ravages of recurrent wars, including Iraq, as this affects the quality of health services provided to patients, especially children.

The inhabitants of Karbala are unstable (and differ greatly) during the months of the year because it is a holy city that millions of Muslims visit during the season of visiting the holy shrines, so the number of children who are exposed to diarrhea increases.

Objectives_ *The present study aimed to evaluate mothers' practices on the use of oral rehydration solution, find out demographic characteristics of mothers like age, level of education, occupation and resident area, and the demographic characteristics of the children in relation to age, gender, arrangement of the child among family members and the type of feeding.*

Methodology_ *Descriptive study, conducted at Karbala Teaching Hospital for Children, from the period of December (2016) to the end of February (2017), non-probability sample consists of from (100) mothers as a direct from Karbala Teaching Hospital for Children, using a questionnaire prepared for this purpose..*

Results_ *The results shows that (64%) of mothers their age between (20-30) years, (56%) of mothers graduate from primary school, (93%) of mothers were unemployed, the results also shows that (62%) of mothers prepared ORT by 1 liter of boiled cooled water and (56%) of mothers given to the child rice water with salt during ORT.*

Recommendations_ *The researchers recommended the necessity of instruction and implementing a special educational program for mothers on how to care for children suffering from diarrhea.*

Conclusion_ *Diarrhea is the most common health problem among children especially under five years of old and leading to admission to the Karbala Teaching Hospital for Children in this period.*

Keywords: *Diarrhea, Mothers, Children*

Introduction

Diarrhea is a clinical manifestation of a variety disorders of infants and young children and is one of the main causes of morbidity among them in most parts of the world, were crowding and lack of sanitary facilities present a major public health problem, as many infectious agent have been known to cause diarrhea such as bacteria, parasites and viruses (1). Diarrhea can also be easily developed by physiological and nutritional disorders in the complete absence of any enteropathogens, it is graded into three degrees, Mild, Moderate and Extreme according to its severity (2). Diarrhea contributes to dehydration causing death in children that all children with diarrhea were admitted to hospital for fluid replacement through intravenous routing before applying Oral Rehydration Therapy, but not one day after applying Oral Rehydration Therapy the number of hospital admitted cases is reduced (3). ORT is considered an important method for reducing childhood dehydration as a -cult of diarrhea and any mild diarrheal becomes moderate

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or extreme because of adequate mother's awareness and diarrheal care practices (4). The Oral Rehydration Solution (ORS) reflects the therapeutic implementation of some of cell physiology's most fundamental principles. It provides an affordable and easy treatment with very few possible complications (5). Oral Rehydration Treatment in the mouth to avoid or correct the dehydration resulting from diarrhea consisting of the following 3.5 gram / liter sodium chloride, 1.5 gram / liter potassium chloride, Tri-sodium citrate dehydration 3 2.9 gram / liter and 20 gram / liter glucose (4). In Iraq, diarrhea is considered a significant cause of infant morbidity, and rates of bacterial diarrhea lead to around one third of total infant and early childhood cases of diarrhea (5). So, we chose the study on this topic because during our clinical work, and we found that most of the children attending the diarrhea (DVD) when we spoke to the mothers about how they can manage it at home, we noticed that they have less practices about the ORS habits, so we're interested in doing this research (6).

Design: Descriptive study, non-probability sample conducted at Karbala Teaching Hospital for Children, from the period of December (2018) to the end of February (2019).

Setting: The administrative permissions were obtained from pediatric clinics. Data was collected from 3 pediatric clinics located near to the Imam Hussein shrine and his brother Abaas shrine in the Holy Karbala City.

The administrative permissions were obtained from Karbala Teaching Hospital for Children. Data was collected from outpatient of this hospital.

Sample: A non-probability sample consists of 100 mothers with his child who suffering from mild to moderate diarrhea. The researchers inform all mothers about the purpose of this study to ensure their agreement to be enrolled in this study. Also ensures the confidentiality of their information for all participants.

Data Collection: Data was collected from Karbala Teaching Hospital for Children. The questionnaire format consist of three parts: the first part used to detect demographic characteristic of mothers. Part two include demographic characteristic of child. And finally part three includes practice of mother regarding oral rehydration therapy it content 9 items. A direct interviewing was held by the investigator to obtain data from mothers.

Data analysis: The program of an IBM Statistical Package of Social Sciences (SPSS) Version 24 was used to analyze and assess the results of the study. Descriptive statistical analysis procedures (frequency, percentage), were used to pattern of disease among mothers who has child suffering from diarrhea, and inferential statistical analysis was used to examine the association between practice of mother regarding oral rehydration therapy with their socio-demographic characteristics.

Results:

Table 1: Demographic characteristic of mothers

Items	Frequency	Percentage
Age of mother		
Less than 19	0	0%
20 – 30	64	64%
31 – 40	35	35%
41 – 50	1	1%
More than 50	0	0%
Total	100	100%
Level of education		
Illiterate	23	23%
Read and write	7	7%
Primary school	56	56%
Secondary school	9	9%
University and institute	5	5%
Total	100	100%
Occupation		
Employer	7	7%
Unemployed	93	93%
Total	100	100%

Table (1) shows that (64%) of mothers their age between (20-30) years, while (1%) of mothers their age between (41-50) years. Also this table reveal that (56%) of mothers graduate from primary school and (5%) of them graduate from institution and university, also table (1) shows that (93%) of mothers were unemployed.

Table 2 demographic characteristics of child

Items	Frequency	Percentage
Age of child in years		
Less than 1	48	48%
1 – 2	32	32%
2 – 3	13	13%
3 – 4	3	3%
4 – 5	0	0%
5 – 6	4	4%
Total	100	100%

Sex of the child		
Male	65	65%
Female	35	35%
Total	100	100%
Birth order of the child		
First	24	24%
Second	34	34%
Third	18	18%
Forth	12	12%
Fifth and above	12	12%
Total	100	100%
Kind of feeding		
Breast of feeding	33	33%
Artificial feeding	52	52%
Mixture	15	15%
Total	100	100%

Table (2) shows that (48%) of child their age less than one year, and only (3%) of them their age between (3-4) years, also the table indicated that (65%) of child their male and other female, the table shows that (34%) of child their birth order second, and (24%) of them are first .Also the table shows that (52 %) of children artificial feeding, and (15%) with mixture feeding.

Table 3: Assessment of mother practice among Oral Rehydration Therapy for their child with diarrhea

Items	Frequency	Percentage
1) Oral rehydration salt solution is prepared by :		
Correct answer	62	62 %
Incorrect answer	28	28 %
2) Oral Rehydration salt solution should Be used With In :		
Correct answer	70	70 %
Incorrect answer	30	30 %
3) the frequency of giving oral rehydration salt solution are :		
Correct answer	48	48 %
Incorrect answer	52	52 %
4) Advantage of Using Oral Rehydration Solution is :		
Correct answer	79	79 %
Incorrect answer	21	21 %
5) Oral rehydration salt packets Are Available At :		
Correct answer	63	63 %
Incorrect answer	37	37 %
6) Precaution to be taken while using ORS :		
Correct answer	29	29 %
Incorrect answer	71	71 %
7) The Oral fluid intake while using ORS :		
Correct answer	26	26 %
Incorrect answer	74	74 %
8) The available fluid that can be given during diarrhoea are :		
Correct answer	44	44 %
Incorrect answer	56	54 %
9) Fluid given during ORS :		
Correct answer	26	26 %
Incorrect answer	74	74 %

Table (3) the table shows (62%) of mothers had good practice to prepared ORS and only (28%) of mothers had bad practice to prepared ORS. Also shows that (70%) of mothers had good practice to used Oral Rehydration salt solution and (30%) of them had bad practice to who used Oral Rehydration salt solution. (48%) of mothers had good practice about the frequency of giving oral rehydration salt solution and others had bad practice about the frequency of giving oral rehydration salt solution. Also this table shows that (79%) of mother had good practice about advantage of using Oral Rehydration Solution and others had bad practice about the advantage of using Oral Rehydration Solution. Also

the table shows that (63%) of mothers had good practice about that Oral rehydration salt packets are available for given time, and (27%) of them had bad practice about Oral rehydration salt packets are available for given time. (29%) of mothers had good practice about precaution to be taken while using ORS and grate of sample had bad practice about precaution to be taken while using ORS. And only (26%) of them had good practice about oral fluid intake while using ORS and others had bad practice about the Oral fluid intake while using ORS. Also the table shows that (44%) of mothers had good practice about available fluid that can be given during diarrhea and (56%) of them had bad practice about that available fluid that can be given during diarrhoea. Also the table shows that only (26%) of mothers had good practice for given Fluid during ORS and (74%) of them had practice for given Fluid during ORS.

Discussion:

Diarrhea, especially acute diarrhea, continues to be a major public health issue worldwide. Approximate 12 or more diarrheal episodes per infant per annum occur during the first 5 years of life in developing countries. Around 4.6 million pediatric deaths annually, around 25 to 30 percent of all deaths among children under the age of 5 years, can be due to acute diarrhea (1). Khamees et al., (2020) refers to acute respiratory tract infections, gastroenteritis, and different injuries occur worldwide. Throughout the Arba'een of Imam Hussein mass gathering and are not restricted to acute respiratory tract infections followed by diarrhea (7).

The present study describes the practice of mothers to treat their children who suffered from mild and moderate cases of diarrhea at home during their visit to the Kerbala Teaching Hospital for Children, this study agree with the findings of the study done by Zeki and Ilham (2014), who found that highest percentage of mothers from age group (24-29) years; majority of them housewives (8). Also agree with the findings of the study done by Abdul Mahdi (2020), showed that (64%) of mothers their age between (20-30) years (9). This result of present study agree also with the study done by Enzley S, Barros F (1997), who found that in his study regarding diarrhea the majority of the child their age less than one year, most of them male with artificial feeding (10).

Also about mothers prepared of ORT, the result agree with the study done by World health organization, the study shows that mothers had a good practice about that oral rehydration salt used (11). Also the findings agree with Mohamed et al., (2020), who found that the (78%) of mothers had good practice about how to prepare ORS correctly. Regarding the frequency of giving oral rehydration salt (44%) of mothers had good practice about giving fluid after each stool pass, this result disagree with the study done by Claeson and Merson (2006), who founded that (55%) of mothers had good practice for giving oral rehydration salt after each stool pass (13). Also the study shows that only (26%) of mothers had good practice about ORT replaced electrolytes and water lost from the body this study disagree with the study done by Snyder and Merson (2000), who stated that in their study the majority of mothers knew that ORT replace fluid in child body (14). also Gondar and Farooq (2017), who found the majority of mothers, were aware used regarding ORS and home available fluids (15).

Also table (3) shows that (44%) of mothers knew that ORT are available at health center, this result disagree with the study done (16, 17) who found that in their study the majority of mothers had good practice about ORT are available at health center. In a similar a study in Tehran done by Kolahi and Shekarriz (2007), shows about 90% of mothers knew about the ORS and 72% of them used it for their children; however, only 43% of diarrheal children received ORS, in practice at health center (18) and this founded disagree with present study. Also the table shows bad practices in precaution to be taken while using ORS and this result agree with the study done by (18,19) who found that most of mothers store ORT in a cool dry place. Also our results shows that (29%) of mothers had bad practice about using usual amount of fluid while using ORS and (71%) of them had bad practice about give addition fluid during episode of diarrhea and this result agree with the study done by (17, 18, 19) who found that the majority of mothers they give ORT only without any others kind of fluid. Despite its lack of veracity, it is still believed that the diluted milk or fluid and food is better tolerated by the gastrointestinal system of children during diarrhea and this result disagree with study done by Trand et al., (2012) in Norway emphasized that the role of breastfeeding as the most important factor affecting the duration of diarrhea (19).

Conclusion and Recommendations: Diarrhea is one of the most common health problems among children, especially under five years of age, and it leads to admission to the Karbala Teaching Hospital for Children during this period. The mothers must be awareness of increasing their knowledge and practice in treating cases of diarrhea and preventing the worsening of their health conditions.

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Conflict of Interest: The researchers affirm that they not have conflict of interest.

Ethical Considerations: Ethical approval was achieved from Hospital administration and mothers to signify their voluntary participations in this study.

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