

Knowledge of mothers on management of childhood diarrhoea among children under five years in rural areas of Al-Mukalla city / 2018

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Abstract:

Introduction: Diarrhoea has consistently been one of the five most prevalent diseases and is considered the second public health problem that lead to death cause among children under 5 years. Home management is usually the initial approach by mothers of children with acute diarrhoea.

Objective: This study therefore sought to assess the knowledge of mothers about symptoms and signs of diarrhoea and ways of prevention and management in rural community.

Methods: Community bases cross sectional study, 260 mothers from rural areas in Al-Mukalla city enrolled after taken ethical approval from authorities and mothers. Modified questionnaire has been used to collect data which are analyzed by using SPSS software, descriptive statistic including frequencies and percentage are used for analysis.

Results: This study found good knowledge about concept of diarrhoea among 86.2% of mothers enrolled in it. Half of mothers (50%) know that the presence of blood and pus in stool of children is considered an important symptoms of diarrhoea while 90% do not know about the signs of diarrhoea. Regarding the ORS preparation and given to child as treatment, only 20% and 10% knew that respectively. Only 10% of mothers know about the importance of immunization to prevent diarrhoea.

Conclusion: Existing integrated management of child illness (IMCI) program targeting prevention of diarrhoea should consider the educational level of mothers and their believes when planning for intervention, and give community messages about the role of immunization as preventable way of diarrhoea.

Keywords: children, under 5 years, diarrhoea, ORS, dehydration, immunization, prevention.

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ملخص البحث

المقدمة:

يعتبر الاسهال من اكثر الامراض الخمسة انتشارا ويعتبر مشكلة من مشاكل الصحة العامة التي تؤدي الى وفاة الاطفال دون سن الخامسة من العمر. عادة ما يكون العلاج في المنزل هو النهج الاولي الذي تتبناه امهات الاطفال المصابين بالاسهال الحاد.

الهدف:

سعت هذه الدراسة الى تقييم معرفة الامهات باعراض وعلامات الاسهال وطرق الوقاية والتعامل معه في المجتمع الريفي.

المنهجية:

دراسة مجتمعية مستعرضة، شملت 260 من الامهات من المناطق الريفية في مدينة المكلا بعد الحصول على موافقة بعمل الدراسة من السلطات المحلية والامهات. تم استخدام استبيان معدل لجمع البيانات التي يتم تحليلها باستخدام برنامج SPSS، والاحصائيات الوصفية بما في ذلك الترددات والنسب المئوية التي استخدمت للتحليل.

النتائج:

وجدت هذه الدراسة معرفة جيدة بمفهوم الاسهال بين 86.2% من الامهات المسجلات فيها. نصف عدد الامهات (50%) يعرفن ان وجود الدم والقيح في براز اطفالهن يعتبر احد اعراض الاسهال الخطرة في حين ان 90% لا يعرفن علامات الاسهال. وفيما يتعلق باعداد املاح الاماهة الفموية وإعطائها للطفل كعلاج، فان 20% و 10% فقط من الامهات يعرفن ذلك على التوالي، كما أن 10% فقط يعرفن أهمية التحصين لمنع الاسهال.

الخلاصة:

ينبغي ان ينظر برنامج الرعاية التكاملية لصحة الطفل (IMCI) الذي يستهدف الوقاية من الاسهال الى المستوى التعليمي للامهات، والمعتقدات الخاصة بهم عند التخطيط للتدخل واعطاء رسائل للمجتمع حول دور التحصين كوسيلة يمكن الوقاية بها من الاسهالات.

الكلمات المفتاحية:

الأطفال، دون سن الخامسة، الاسهال، املاح الاماهة الفموية، التحصين، الجفاف، الوقاية.

Introduction:

Diarrhoea is defined as liquid stools three or more per day, not formed nor pasty stool by breastfed babies resulting from an infection in the intestinal tract. Multiple site studies worldwide concluded that moderate and severe episode of diarrhoea mostly attributed to many types of bacteria and virus, whereas another studies showed the diarrhoea in children associated strongly with rotavirus which is considered the predominant pathogen.^{1,2,3,4,5,6}

The knowledge and performance of mother had a vital role in promotion, children care, and the actions taken by mother as a brief and superficial examination of dehydrated children, amount and type of liquid fed child are vital for children welfare,^{7, 8, 9, 10} in same vein; mother's knowledge, beliefs, education, traditions and acceptance of incorrect facts has also contributed immensely to the worrisome burden of diarrhea which presented in the literature review reported that maternal knowledge was inadequate about the etiologic factors, symptoms, treatment and methods and procedures or the proper diet of children with diarrheal episode.^{11, 12, 13, 14}

Maternal knowledge about diarrhea disease, signs of dehydration, ways of intervention and treatment had an important effect on health of children under-5 years. Worldwide; many studies have been done to determine the impact of mother's knowledge on management of diarrhea, and what related factors that affect the degree of maternal knowledge, the literature review suggested that mothers had a good understanding to diarrhoea disease according to the definition of WHO. In Asia, the proportion of mothers who know diarrhoea properly has been reported as 72% of Pakistani mothers, 88% of Bangladesh mothers, 15, 16 while about signs of dehydration, most of mothers in developing countries had no idea about dangerous sign of dehydration like sunken eyes with thirst, dry skin, decreasing in amount of salivation. Mothers in Karachi, Gambat and Sindh in Pakistan are not able to determine the signs of dehydration,^{15,17, 18} in contrast; mothers in squatter settlement of Karachi were cognizant well about the signs of dehydration.¹⁹

The ORS is regarded as treatment of choice in diarrhoea, it's using stimulates by signs and symptoms of dehydration and stopped when the child had visible recovery, accordingly; the WHO diarrhoea control program statement is appropriate maternal knowledge and the use ORS is considered the cardinal components for preventing dehydration, and decreasing

the morbidity and mortality rate of children under 5 years by diarrhoea.^{20,21} Unfortunately, mother's knowledge is not enough for management children with diarrhoea at home, and it is know that mother's beliefs about home management of fluids during diarrhoea disease is very important to modify their beliefs and responsibilities followed by intervention to change and adapt their beliefs.¹² Majority of mothers in rural areas are uneducated, and work in agriculture and livestock care, and live in difficult situation, all this factors can effect on their knowledge about diarrhoea episode and ways of treating the children. This study therefore sought to assess the knowledge of mothers about symptoms and signs of diarrhoea and way of management in rural community.

Materials and methods:

Community based cross sectional study, the 260 women in reproductive age (15-49 years) enrolled in this study and had at least one children under 5 years who live in rural areas of Al- Mukalla city (permanent resident >5 years) after taken a permission from the health authorities in Al- Mukalla city and verbal informed consent from mothers for an interview, and exclude mothers with serious mental problems, have hearing and speaking difficulties or children under the care of anyone other than their mothers (baby sitters, friends, etc...).

Questionnaire was adapted and modified from multiple indicator cluster survey for children under 5 years to collect data on the knowledge of mothers about signs and symptoms of diarrhoea and ways of treatment. Pretest will be done on 5% of sample out of non-sampling areas, and necessary correction will be made on the clarity of language, the sequence and work ability of questionnaire. Based on findings of the pretest, the questionnaire was modified. Orientation was given for supervisors and data collectors. Use SPSS software package version 20.0 for data entering and for further analysis after check for its completeness. Data will be cleaning by running simple frequency after data entry for its consistency then printing frequencies are using to check for outlier and clean data. The results of this research will be analyzed, summarized, and univariate data distributions will be explored using frequencies and percentages.

Results:

In table 1, 224 mothers about 86.2% defined diarrhoea as frequent watery stool, while 6.9% of mothers defined diarrhoea as stool with blood.

The rest of mothers defined diarrhoea as repeated vomiting (3.4%), sunken fontanel (2.3%) or other (1.2%). Regarding symptoms of diarrhoea and the ask of treatment, 130 mothers (50%) knew blood and pus in child stool was an important reason for asking treatment, followed by fever with 71 of mother (27.3%). concerning signs of dehydration 234 mothers (90%) not know about it, while only 15 mothers (5.8%) and 11 mothers (4.2%) of mothers knew about sunken eyes and thirsty and dry skin as a signs of dehydration respectively. (Table 2) Regarding knowledge of mothers about ORS benefit for children during diarrhoea disease and its way of preparation, 234 (90%) and 208 (80%) of mothers don't know respectively. Only 26 (10%) mothers in this study knew about the benefit of ORS during the diarrhoea episode and 52 (20%) knew the way of preparation. (Table 3) 71.5% of mothers know the ways of prevention which washing hands is an effective way. Poor maternal knowledge (10%) about routine immunization as one of ways of diarrhoea prevention. (Table 4).

Tables:

Table 1: Mother's Knowledge about the Concept of Diarrhoea

Concept of diarrhoea	No.	%
Watery stool	224	86.2
Repeated vomiting	9	3.4
Stool with blood	18	6.9
Sunken fontanel	6	2.3
Other	3	1.2

Table 2: Knowledge of mothers towards symptoms and signs of diarrhoea

Variables	No.	%
Symptoms		
Fever	71	27.3
Continuous vomiting	40	15.4
Inability to eat or drink	10	3.8
Laxity and inability to move	3	1.2
Blood and pus in child stool	130	50
I don't know	6	2.3
Signs		
Sunken eyes	15	5.8
Thirsty and dry skin	11	4.2
I don't no	234	90

Table 3: Knowledge of mothers towards ORS and other Fluids during diarrhoea episode

Knowledge		No.	%
Do you know giving child ORS during diarrhoea is benefit?	Yes	26	10
	No	234	90
Do you know the way of preparation ORS at home?	Yes	52	20
	No	208	80

Discussion:

Mothers in this study had a good understanding (86.2%) of diarrhoeal disease as defined by WHO (watery diarrhoea). The proportion of mothers who defined diarrhoea properly have been reported in the literature review from Asian and African studies. ^{15, 16, 22, 23, 24} few mothers in Iran, Nigeria and Burkina Faso failed to recognize episode of diarrhoea in their children. ^{25,26}

Based on our findings; 50% of mothers knew that present blood and pus in child stool or fever (27.3%) is an important symptom to ask treatment. Another significant finding was lack of knowledge about the signs of dehydration (90%), the diarrhoea itself is not lethal but misunderstanding or improper maternal knowledge towards its signs of dehydration leads to increase the morbidity and mortality of children under 5 years. These results are consistent to that reported in Southern Odisha- India, and in Gambat, Pakistan when majority of mothers were did not know about the danger signs of dehydration. ^{27, 17}

In our participants, knowledge of ORS benefit during diarrhoea disease was found to be low (90%). Regarding the way of preparation at home, the majority (80%) did not know the way of preparation. In studies done by Rishi RK and Adimora GN, only 18% and 27.6% of mothers had no knowledge about signs of dehydration. ^{28, 29} Reverse our study, studies from Nigeria (82% to 99%) and Iran (90%) reported a well knowledge of mothers about the ORS. ^{30, 31, 32} Mothers have their beliefs and knowledge about management of their children with diarrhoea and found many reasons to illustrate the poor of maternal knowledge about ORS or its way of preparation at home, but the most common one was absent which is correct education of mothers from health facilities when mothers come to get services during awareness campaigns. Studies conducted in Iran, Ethiopia and Tanzania revealed that mother's education played an important role in improving the knowledge and awareness of mothers towards diarrheal disease in children under 5 years and its management. ^{30, 33}

Of all ways of preventing diarrhoea, only washing hands when preparing meals take large percentage (71.5%) than other ways, what confirms the findings from previous study is washing hands.³⁴ About the role of immunization to prevent diarrhoea, only 10% of mothers knew that, majority of mothers in this study did not know that when not vaccinated children are at risk of contracting diarrhoea. The immunization coverage begin high in Almukalla city, but this ignores information that may be related to the insufficient educational messages given to the community by health workers.

Conclusion:

Existing integrated management of child illness (IMCI) program targeting prevention of diarrhoea should consider level of education in mothers, and their believes when planning for intervention and giving community massages of the role of immunization as preventable way from diarrhoea.

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