Association of literacy and knowledge regarding personal hygiene among mothers of children suffering from acute diarrhea.

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Abstract

Background: Acute diarrhea is the most frequent gastrointestinal ailment that occurs repeatedly and the potent cause of dehydration in children. The World Health Organization and United Nations International Children's Emergency Fund had declared that almost two billion cases of this ailment takes place in the world every year.

Objective: To find out the association of literacy rate and knowledge among mothers of children suffering from acute diarrhea.

Methods: A cross-sectional study was carried out at Sir Ganga Ram Hospital, Lahore. The sample of 100 patients diagnosed with acute diarrhea was collected through non-convenient sampling technique from March to June 2018. The data were collected through a pre-tested questionnaire, Microsoft Excel and SPSS version 21.0 was used for analysis.

Results: The results showed that 71% mothers of the children were not educated whereas, 73% of children belonged to lower class families. 81% children were not exclusively breastfed and 29% of children were not using soap for washing hands.

Conclusion: Study concluded that, uneducated mothers, low socioeconomic status, lack of exclusive breast feeding up to 6 months, unhygienic practices, hand washing practices, washing hands without soap, disposal of waste around pit, unsafe water for drinking, cooking and other purposes were responsible for acute diarrhea among children. The number of children with acute diarrhea was higher in rural areas than in urban areas.

Keywords: Diarrhea; acute diarrhea; hygiene.

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INTRODUCTION:

Acute diarrhea is the most frequent gastrointestinal ailment that occurs repeatedly and the potent cause of dehydration in children. In this disorder, the stools become loose or watery. Furthermore, the frequency of stools increases to three or more times during 24 hours and may last for seven days, or in some cases 10 to 14 days. In the foremost stage, diarrhea is coupled with conditions like vomiting, stomach pain and loss of appetite. It is necessary to be aware of the determinants of acute diarrhea as it mostly affects the children of age under five years after their birth and especially in the second half-year [1]. Acute diarrhea is the central issue that contributes to the elevation of the rate of diseases and deaths among the children in fewer income countries [2]. The World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF) had declared that almost two billion cases of this ailment take place in the world every year. Moreover, 1.9 million children expire from this cause yearly, primarily in the progressing areas and countries. Diarrheal illness accounts for up to 18% mortalities which means more than five thousand die every day in children of age up to 5 years [3]. Diarrhea has 3 vital categories that can be assessed clinically. Primarily, the basic one is acute watery diarrhea which stays for several hours or even for days; for example, cholera. The secondary type is acute bloody diarrhea which is also known as dysentery. Finally, persistent diarrhea is the last type which remains for 14 days or even longer than that. However, the change in stools tells us about the presence of infection in the intestinal tract caused by different kinds of viruses, bacteria and parasites [4].

Acute diarrhea is a very significant matter in pediatric practice. Diarrheal diseases are widely dispersed and they can lead to a chronic condition and frequent relapse [5]. Lack of breastfeeding was found to be an influential cause for compromised immunity of the child; therefore, it is very important in the first five months of age to breastfeed the infant. The paucity of the feeding of the mother’s milk at the age of 6 to 23 months can raise mortality and morbidity rates. The World Health Organization recommends mothers to breastfeed their children for at least six months after birth [6]. In low-income countries like Ethiopia, children who were exclusively breastfed became healthy and the rate of disease and deaths was significantly reduced in children under five years of age. The factors like prelacteal feeding and late initiation of breastfeeding had a major association with diarrhea in children [7]. Low birth weight children, underweight mothers, lack of hygiene and micronutrient deficiencies were some major contributors to diarrheal diseases in children [8]. Moreover, diarrhea is a waterborne disease caused by the ingestion of contaminated water [9]. Almost 26 million people died from diarrheal diseases, out of which 5.3 million were children who belonged to lower class and middle-income countries [10]. Children from low-income families were more affected than those from middle-class families [11]. In 2016, 57% of mothers had good knowledge of handwashing which had a major impact on the prevention of disease. On the other hand, in Mawiaben, those mothers who did not have sufficient knowledge and poor hygiene practices led to the occurrence of disease in their children [12]. Diarrheal diseases were more common in areas where there was a lack of hygiene practices, unavailability of clean water for drinking, cooking and cleaning. Likewise, those children who did not wash their hands after defecation suffered from acute diarrhea later [13]. Children age 6-11 months and uneducated mothers had a close association with the occurrence of disease. Most mothers did not use soap while washing hands, water storage containers in the houses with no lids, unsafe drinking water and poor living condition had a significant relation with diarrhea in children [14]. In 2012, the chances of increased diarrhea cases were 2.6 times higher among children with parents having no proper education linked to those who completed their high school. Likewise, diarrheal diseases were higher among children whose mothers had deprived knowledge of how the disease can spread and those who washed hands less frequently compared to those who did. Poor personal hygiene and lack of significant knowledge were strongly associated with the incidence of diarrheal disease among children [15]. Association between maternal education and the risk of childhood diarrhea showed that children of mothers

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<td>WHO= World Health Organization</td>
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<td>UNICEF= United Nations International Children's Emergency Fund</td>
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with low educational levels frequently suffered from serious episodes of diarrhea, with the risk of death in children one year of age [16]. Diarrheal cases occur mostly in the first 2 years of life. The most important factors of acute diarrhea in children were maternal history of maternal diarrhea, mother’s education, no breastfeeding, and short duration of breastfeeding and the age of the child was identified in different studies. The number of children with acute diarrhea was higher in rural areas than in urban areas. In addition, the hand washing practice of the children below five years of age had a huge association with the occurrence of diarrhea [17]. The difference between immunized and non-immunized groups against the measles to observe the attack rate and duration of diarrheal episodes. 75% of participants were immunized. The rate of attack of diarrhea in children with immunization was 1.6 episodes per child per year which was no different to that in the non-immunized 1.5 episodes per child per year. It was shown that the duration of diarrhea in both groups was 2.3 days. Hence, the study clearly showed that measles vaccination had no influence on diarrheal illness [18]. Over a period of time, the part of treating diarrhea with antibiotics and other medicines was found to have a minimal effect. Therefore, it is important that the child is having proper nutrition alongside the therapeutics to fight the disease. However, the significant factors associated with the disease included young mothers, early weaning practices and poor health status of children [19].

METHODS:

A cross-sectional study was conducted in Pediatrics Departments of Sir Ganga Ram Hospital, Lahore. The duration of the study was 4 months. 100 patients diagnosed with acute diarrhea selected through non-probability convenient sampling. Patients not suffering from acute diarrhea, non-Cooperative patients and patients from other than Sir Ganga Ram Hospital Lahore were excluded. Data were collected through a pretested questionnaire during March to June 2018. Data were analyzed and tabulated with the help of Microsoft Excel and SPSS version 21.0.

RESULTS:
DISCUSSION:

A study was directed to find out the association between education and knowledge among mothers of children suffering from acute diarrhea. The patients were selected through a nonprobability convenient sampling technique.

According to a current study, the role of maternal education was studied in which 71% of the mothers of children suffering from diarrhea were not educated, 28% of mothers could not differentiate between diarrhea and acute diarrhea and 9% had no knowledge about diarrhea at all. Likewise, a study was done by Yilgwan CS and Okolo SN in 2012 in which they studied the importance of maternal education in relation to the incidence of disease in children. According to the results, the educational status of a mother had an important relationship with the occurrence of diarrhea in children [20].

In a recent study, the effect of measles vaccines was studied. The results showed that 61% of children suffering from acute diarrhea were vaccinated against measles. The role of vaccines was previously studied by Reddaiah VP et al, to observe its effect on diarrhea in children. The results of the study showed that the rate of occurrence of disease in children with immunization was 1.6 episodes per child per year and 1.5 episodes per year in non-immunized children. The results showed that there was no influence of the measles vaccine on diarrheal disease [18].

According to the recent study done on children suffering from acute diarrhea and their mothers. The results showed that 16% of mothers did not have the habit of washing hands before handling food and 60% of mothers did not have the habit of washing hands after handling the food. The results also showed that 18% of mothers did not wash their hands before feeding their children whereas, 4% of mothers did not wash their hands after washing their child’s bottom. Furthermore, 29% of children did not use soap for washing hands while 17% of mothers did not use soap for washing hands. Likewise, 40% of children did not wash their hands before eating and 60% of children did not wash their hands after eating. The results also revealed that 23% of children did not wash their hands after the defecation. All of these personal hygiene and handwashing practices were responsible for the occurrence of disease in children. A previous study was conducted in 2014 by Mihrete et al, in which he studied the determinants of acute diarrhea in children. Additionally, related studies were conducted by Mengistie B et al, Tarekegn M et al, and Rohmawati N et al, and the researchers observed the risk factors responsible for diarrhea in children under five years of age [14, 15, 21, 22]. The results of all the studies above showed that contaminated water, poor personal hygiene and handwashing practices of both the children and mothers had a major impact on the occurrence of disease.

CONCLUSIONS:

Based on the results of the current study, mother’s education, knowledge about hygiene practices, lack of exclusive breastfeeding up to 6 months and continued breastfeeding till 2 years of age were also responsible for acute diarrhea among children. Lack of unhygienic practices, hand washing practices, washing hands without soap, use of shared toilets, disposal of waste around the pit, unsafe water for drinking had a significant association with the occurrence of acute diarrhea among children. The number of children with acute diarrhea was higher in rural areas than in urban areas. To reduce the burden of disease, it is important to spread awareness among mothers and educate them about the possible risk factors of diarrhea. If the
disease remains untreated it will lead to an increase in the risk of morbidity and mortality rate among children.

REFERENCES


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