



EXPLORING MATERNAL AWARENESS OF CHILDHOOD DIARRHEA IN THE COMMUNITY OF KARACHI PAKISTAN

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Abstract

Background: Diarrhea is characterized by the passage of loose or watery stools, often accompanied by vomiting and dehydration. Childhood diarrhea is a major global health issue affecting millions of children under 5, particularly in low- and middle-income countries.

Objective: To explore maternal awareness of childhood diarrhea in the community of Karachi, Pakistan.

Methodology: This Survey was conducted in the rural community of Karachi, Pakistan, from December 2022 to April 2023. A total of 100 women were part of this study. Data were collected through a self-administered questionnaire.

Result: Results indicated that 20% recognized watery stool and increased frequency as diarrhea symptoms, while 40% identified contaminated water and "evil eyes" as causes. Around 70% correctly associated sunken eyes with dehydration signs. Additionally, 30% recognized lethargy as a consequence, 55% knew about weight loss, 40% mentioned oral rehydration for treatment, and 55% recognized hand hygiene for prevention.

Conclusion: The survey underscores mixed maternal awareness of childhood diarrhea, accurately recognizing some symptoms, causes, and prevention measures but persistent misconceptions.

Focused education is crucial to rectify misconceptions and improve understanding for effective management.

Keywords: Exploring, Maternal, Awareness, Childhood, Diarrhea

Introduction

In children under five, diarrheal sickness is the second largest cause of death, and it claims the lives of 525000 kids annually. Around 1.5 billion cases of diarrhea are reported annually worldwide, resulting in 1.5 to 2.5 million fatalities—more than 20% of all fatalities. The World Health Organization (WHO) claims that the presence of diarrhea in a community is a sign of a subpar water and sewage infrastructure (1). The seasons and a child's age significantly impact the prevalence of diarrheal illnesses. The youngest children are the most at risk since diarrhea is very common in the first two years of life. But as you age, the incidence frequency reduces (2). Moreover, another study found that the major cause of illness and mortality in children is still diarrhea. To target interventions, data on the causes of hospitalized diarrhea in low- and middle-income countries must be systematically gathered and assessed (3). The fact that diarrheal episodes can hinder growth and other health-related outcomes, such as wasting, adds to the load on the health system (4).

The WHO describes diarrhea in children as the passing of three or more loose or watery stools per day or when mothers believe the passage of stools to be abnormal and more often than usual for a kid (5). Moreover, diarrhea causes loss of bodily fluids and salt, which can lead to severe dehydration or death in a short time, or it predisposes children to malnutrition, making them more susceptible to other illnesses (6). Various diseases can cause diarrhea, the relative importance of which varies by geography (7). It can be acquired through various exposure pathways, including food, water, person-to-person contact, and direct contact with fecal waste—pathways related to healthy water and sanitation facilities (8).

Oral Rehydration Solution (ORS), the most straightforward, cost-effective therapeutic strategy for preventing and treating dehydration, has emerged as a magical choice in managing diarrheas in the twenty-first century. Despite this, it is believed that ORS propaganda is not effectively disseminated in the community, resulting in inadequate, irregular, or incomplete ORS therapy during dehydration. Several studies have also reported the significance of using ORS at home to treat diarrhea (9).

According to Akachi and Kaning (2010), addressing nutrition should be a crucial component of developmental intervention because child mortality significantly predicts future outcomes. People who have experienced a high level of childhood difficulties have been demonstrated to have lower cognition, height, and maturity and be at risk for future problems and mortality (10). As primary carers, mothers have a vital role in recognizing the signs and symptoms of diarrhea, understanding its causes, applying appropriate preventive measures, and seeking immediate medical help when necessary (11). Poor maternal perception of diarrhea and delayed care can result in morbidity and fatality (12). A vast number of research on mothers' knowledge of childhood diarrhea shows that mothers lack enough information on this disease's etiology, symptoms, therapies, and care methods (1, 13, 14). Therefore, this study aims to assess the awareness of mothers regarding diarrhea.

Methodology

This research adopts a cross-sectional study design to explore maternal awareness of childhood diarrhea in the community of Karachi, Pakistan, from December 2022 to April 2023. Moreover, a convenience sampling approach was employed to approach the study participants. A total of 100 mothers with children under 5 years old were the part of this study. These were selected through this criterion: Mothers with at least one child under five residing in the selected community willing to participate in the study. And the exclusion Criteria were: Mothers who do not have children under five years old, non-residents of the selected community and unwillingness to participate in the study.

A structured questionnaire was developed based on the study objectives. It will cover areas such as diarrhea symptoms, causes, signs of dehydration, consequences, treatment strategies, and prevention methods. Trained enumerators approach potential participants in the selected community. Informed consent was obtained from each participant before administering the questionnaire. SPSS version 24 was used for the data analysis. Descriptive statistics such as percentages and frequency were used to summarize the responses to various questionnaire items and demographic data. Before the data collection, approval was taken from the institute. Participants were also fully informed about the study's purpose, procedures, and rights. Written consent was obtained from each participant. Participants' identities and responses were kept confidential. Participation in the study was entirely voluntary, and participants had the right to withdraw at any point without consequences.

Result

Table 1 presents information from a survey conducted on a group of individuals. The average age of the participants is 28.51 years. Regarding education, 33% of the participants are literate, while 67% are illiterate. When considering their husband's income level, 70% of the participants have husbands earning less than 50000 Pakistani Rupees (PKR), while 30% have husbands earning more than 50000 PKR.

Table 1 Demographic data of the participants n=100

Variables	Frequency (mean)	Percentage
Mean Age	28.51	
Education Status		
Literate	33	(33%)
Illiterate	67	(67%)
Husband Income Level (PKR)		
<50000	70	70%
>50000	30	(30%)

Table 1 presents the findings of a survey conducted among 100 mothers with children under five years old to understand their knowledge about diarrhea. Participants were asked about diarrhea symptoms, causes, signs of dehydration, consequences, treatment strategies, and prevention methods. The results showed that 20% recognized watery stools and increased frequency as signs of diarrhea. About 40% identified contaminated water and "evil eyes" as causes of diarrhea. Most of 70% correctly identified sunken eyes as a sign of dehydration. While 30% recognized lethargy as a consequence of diarrhea, 55% knew that weight loss could result. Regarding treatment, 40% correctly mentioned staying hydrated with oral rehydration solutions, and 55% recognized hand hygiene as a preventive measure.

Table 2 Knowledge Regarding Diarrhea Among Mothers

Variables	Percentage
What is Diarrhea?	
Watery stool	20%
Increase frequency	40%
Both	40%
Cause of Diarrhea	
Contaminated water and mud	36%
Evil eyes	40%
Don't know	10%
Teething	15%
Sign of dehydration	
Sunken eyes	70%
Thirsty and dry skin	20%
Don't know	10%
What are the Consequences of Diarrhea?	
Lethargy	30%

Loss of Weight	55%
Unconsciousness	10%
Death	5%
What is a common treatment strategy for diarrhea?	
Increasing caffeine intake	20%
Consuming high-fat foods	30%
Staying hydrated and drinking oral rehydration solutions	40%
Avoiding all fruits and vegetables	10%
What is a recommended method for preventing diarrhea?	
Reducing water intake to avoid excessive urination	25%
Consuming undercooked and raw meats	10%
Practising good hand hygiene and washing hands with soap and water	55%
Avoiding all types of beverages, including water and clear liquids	10%

Discussion

In low-income nations, one out of every ten babies die before age five due to diarrheal sickness. Eight out of every ten deaths before age five occur in the first two years of life (15). Maternal awareness of this issue is pivotal in preventing and managing diarrhea-related morbidity and mortality. So, this study aims to identify mothers' awareness regarding childhood diarrhea.

The current study found the mean age of the participants, which is 28.51. Another study found a slightly different result, 32.37 (16).

Present findings showed that 20% recognized both watery stool and increased frequency as signs of Diarrhea 40% believed that watery stool is diarrhea. Another study found that 69.6% responded that watery stool is diarrhea, while 15.2% responded that Increase frequency is diarrhea (17).

Moreover, the present findings show that 40% agreed that evil eyes cause diarrhea while 15% agreed that teething cause diarrhea. According to another study, 47% of mothers believe that kid diarrhea is caused by teething, while a significant proportion (13.5%) of carers believe that the evil eye causes diarrhea. Cultural and traditional ideas frequently influence people's perceptions of health and illness. In some societies, "evil eyes" or malevolent spirits are considered possible causes of various health problems, including childhood diarrhea. Similarly, teething is an important developmental milestone, and in some cultures, teething is said to cause changes in the body, including diarrhea.

Furthermore, the findings revealed that 55% responded that practising good hand hygiene and washing hands with soap and water prevents diarrhea. Another study found that 91% believed that poor hand hygiene cause diarrhea (18). The studies might have been conducted in different regions or communities with varying cultural norms and social backgrounds. Cultural beliefs and practices can significantly influence how people perceive the importance of hand hygiene in preventing diarrhea.

Present findings show that 20% responded that Increasing caffeine intake is the treatment strategy for diarrhea. In contrast, a study found that 76% agreed with this statement (18).

Present findings show that only 40% agreed that staying hydrated and drinking oral rehydration solutions is the treatment of diarrhea. Compared to the Southern Nigeria trial, 50% of carers offered their children homemade oral rehydration solution (19). As a result, it is critical to develop useful educational programs to improve routine approaches to managing childhood diarrhea in healthcare settings (20).

Conclusion

The survey highlights varying maternal knowledge levels regarding childhood diarrhea. While some key symptoms, causes, and preventive measures are recognized, misconceptions persist, such as the role of "evil eyes" in causing diarrhea. The majority correctly identified sunken eyes as a sign of dehydration. Improvement areas include enhancing understanding of consequences and promoting

accurate treatment strategies. Notably, hand hygiene recognition is encouraging for preventive practices. Targeted education is essential to address misconceptions, bolster accurate knowledge, and ensure effective management of childhood diarrhea.

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