Parents' knowledge about gastroenteritis in Diyala governorate

By

Laith Moayad Ahmed

Supervised by

Prof. Dr. Nadhim Ghazal Noaman

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Abstract

Background: With an estimated 1.8 million deaths per year, diarrhea is one of the most frequent causes of morbidity and hospitalization, accounting for 18% of pediatric fatalities globally. Very few studies have assessed what parents know about gastroenteritis, and none of them have examined the potential impact of prior information from medical professionals.

Aim: To assess the knowledge of parents about pediatric acute gastroenteritis in Diyala governorate.

Patients and methods: This is cross-sectional study was conducted during the period from the 1st of July 2023 to the end of January 2024 in Al-batool teaching hospital in Diyala governorate. We collected 100 patients suffered from acute gastroenteritis who attended the emergency ward and outpatient clinic. We collected information about gender, parents' occupation, parents educational level, symptoms of AGE, etc. using a well-prepared written questionnaire and by direct interview with the mothers of the patients.

Results: 50 patients were enrolled in our study. Their mean age was 14.4 ± 13.8 months. All of the patients suffered from diarrhea and 72% suffered from vomiting. 61% were males and 39% were females.

Conclusion: The frequency of gastroenteritis was very high. Gastroenteritis was not well understood or known. At least 14% of individuals whose children had the illness thought it was not serious and would go away on its own.

Introduction

With an estimated 1.8 million deaths per year, diarrhea is one of the most frequent causes of morbidity and hospitalization, accounting for 18% of pediatric fatalities globally. The annual incidence of diarrhea stays constant at about 700 million episodes, even if global mortality has decreased. The impact is significant even in industrialized nations; in the USA, gastroenteritis causes 220,000 hospital admissions as well as 300 fatalities per year. In underdeveloped nations, 50% of

gastroenteritis-related deaths occur before a patient reaches a hospital; much of the cost burden could be avoided by informing parents about the outpatient treatment options available for gastroenteritis (1).

It is challenging to determine the exact frequency and causation of acute infectious gastroenteritis since not all patients report their symptoms or seek medical attention. Furthermore, only 1.5% to 5.6% of instances of stool cultures, which are used to determine the bacterial etiology of gastroenteritis, yield positive results. The two main viruses that cause acute gastroenteritis are norovirus and rotavirus. An estimated 15 to 25 million cases of viral gastroenteritis are reported in the US annually, resulting in 3 to 5 million doctor visits and 200,000 hospital admissions (2).

Young children are particularly vulnerable to a particularly severe dehydrating gastroenteritis caused by rotavirus. Malnourishment exacerbates the severity of the infection, hence rotavirus is a major cause of infant mortality globally, accounting for about 500,000 deaths every year. Rotavirus gastroenteritis has decreased after the rotavirus vaccination was introduced in the US and Europe. Positive laboratory results linked to immunization have decreased by 67% (3).

Guidelines prioritize bowel rest, food modifications, and hydration or rehydration. The best course of action is oral rehydration, which is frequently neglected in the US. Oral rehydration works well for small intestine-related diarrheal diseases because the bowel can still absorb water with the help of sodium-glucose cotransport. The World Health Organization advises rehydrating using water that contains salt, sodium bicarbonate, and glucose in order to supply the glucose and electrolytes. Sports beverages like Gatorade and others don't have enough salt (4).

It is best to use empiric antibiotics cautiously. As to the 2001 IDSA treatment guidelines, patients with immunocompromised patients, those with more than eight stools a day, dehydration, or symptoms that have persisted for more than a week should receive empiric treatment for moderate to severe traveler's gastroenteritis. When bloody stools and a fever are present, empiric therapy may also be considered. Treatments that are considered empirical include ciprofloxacin (500 mg twice daily for 3–5 days), norfloxacin (400 mg twice daily for 3–5 days), and levofloxacin (500 mg daily for 3–5 days). For three days, 500 mg of azithromycin per day is advised in places where fluoroquinolone resistance is an issue (5).

A number of medical organizations, including the American Academy of Pediatrics (AAP) and the European Society for Paediatric Gastroenterology, Hepatology and Nutrition/European Society for Paediatric Infectious Disease (ESPGHAN/ESPID), have published guidelines for the treatment of acute gastroenteritis in children. Regretfully, some medical professionals have not adhered to these recommendations to the letter. Very few studies have assessed what parents know about gastroenteritis, and none of them have examined the potential impact of prior information from medical professionals. Planning effective strategies to teach parents the current practices will require this information in order to avoid needless medical visits, hospital stays, and even fatalities (6).

Aim of study

To assess the knowledge of parents about pediatric acute gastroenteritis in Diyala governorate.

Patients and methods

This is cross-sectional study was conducted during the period from the 1st of July 2023 to the end of January 2024 in Al-batool teaching hospital in Diyala governorate. We collected one hundred patients suffered from acute gastroenteritis who attended the emergency ward and outpatient clinic. information about gender, parents' occupation, parents educational level, symptoms of AGE, etc. using a well-

prepared written questionnaire was collected and by direct interview with the mothers of the patients. the privacy of the patients was preserved for the reasons of confidentiality and risk of bias.

Statistical analysis

SPSS Version 25 was used for the description of the data and to calculate the odd ratio. We expressed the quantitative data by arithmetic mean, standard deviation and mode and the qualitative data by frequencies.

Results

50 patients were enrolled in our study. Their mean age was 14.4 ± 13.8 months. Their gender is demonstrated in table 1.

Table 1. distribution of patients according to their gender.

Gender	Frequency	Percent
Male	61	61.0
Female	39	39.0
Total	100	100.0

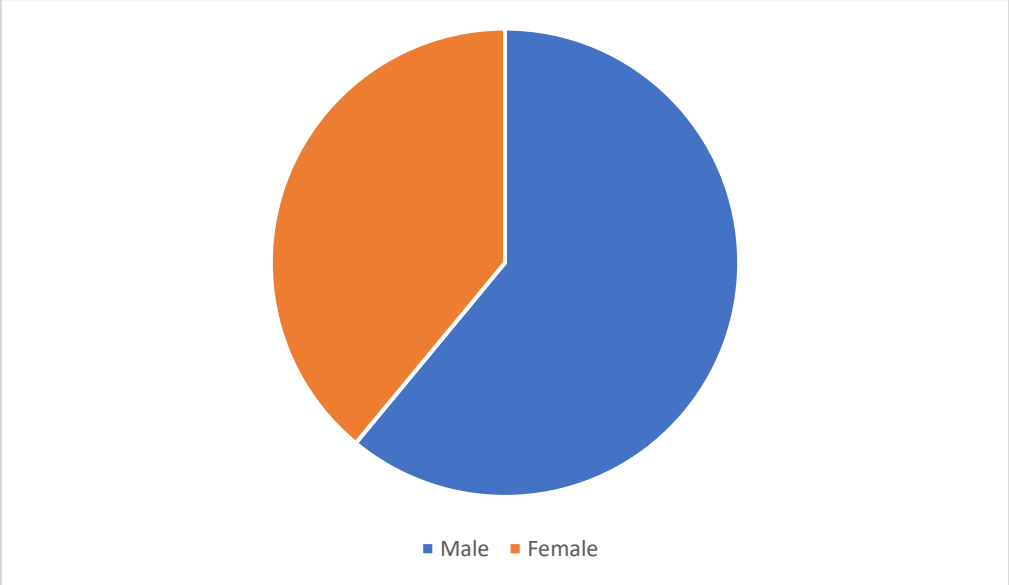

Figure 1. gender

The parents' occupations are demonstrated in table 2.

Table 2. the distribution of patients according to the occupation of their parents.

Occupations		Frequency	Percent
Maternal occupation	Housewife	89	89.0%
	Employee	11	11.0%
Fathers' occupation	Employee	26	26.0%
	Free worker	74	74.0%

The parent's educational level is demonstrated in table 3.

Table 3. parents' educational level

Educational level		Frequency	Percent
Maternal educational level	Illiterate	10	10.0%
	Primary	43	43.0%
	Secondary	24	24.0%
	Highschool	7	7.0%
	College or higher	16	16.0%
Paternal educational level	Illiterate	11	11.0%
	Primary	43	43.0%
	Secondary	18	18.0%
	Highschool	10	10.0%
	College or higher	18	18.0%

All of the patients suffered from diarrhea and 72% suffered from vomiting, The number of bowel motions per day is demonstrated in table 4.

Table 4. distribution of patients according to their bowel motions.

NO.	Frequency	Percent
3-5 motions	26	26.0
5-10 motions	36	36.0
10-15 motions	27	27.0
> 15 motions	11	11.0
Total	100	100.0

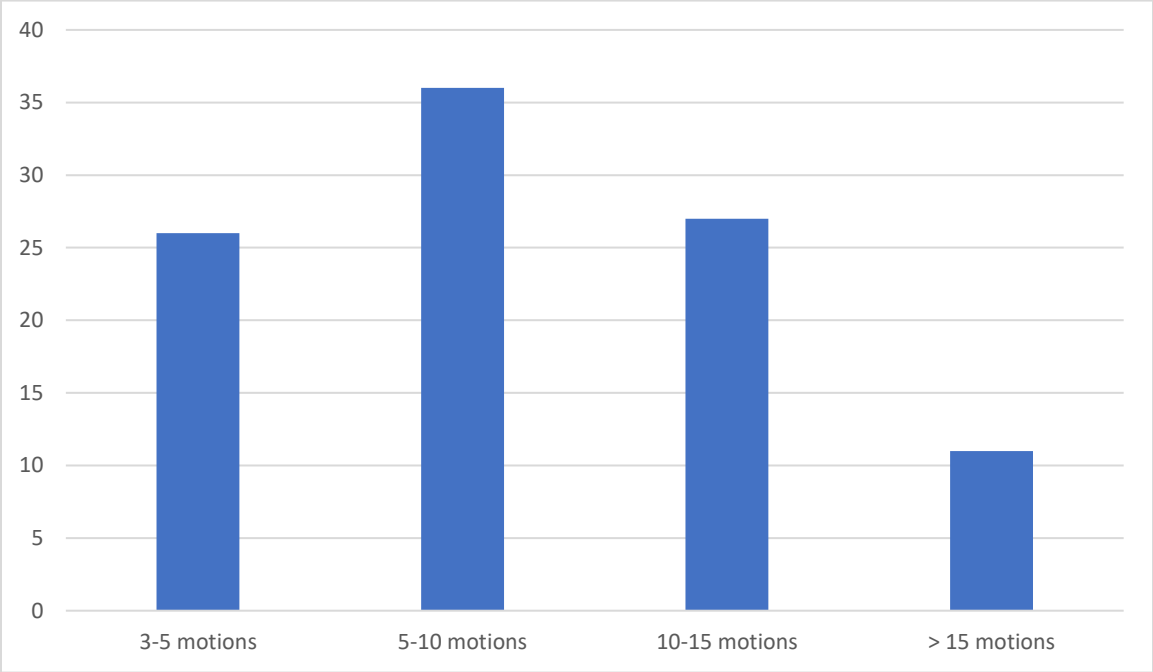

Figure 2. distribution of patients according to their bowel motions

The questions and responses about AGE are demonstrated in table 5.

Table 5. distribution of patients according to their parents knowledge.

Questions about parents' knowledge	Frequency	Percent

Signs of dehydration (sunken eyes, decreased UOP, depressed fontanelle, etc.)	Yes	59	59.0%
	No	41	41.0%
Rehydration methods	Water	6	6.0%
	Fluid foods	94	94.0%
Should the baby take antiemetic?	Yes	68	68.0%
	No	32	32.0%
Hospitalization if no response?	I agree	94	94.0%
	I don't agree	6	6.0%
Does gastroenteritis need to be treated?	No need for treatment	14	14.0%
	Need treatment	86	86.0%
Confidence with the health care providers	I trust	95	95.0%
	I don't trust	5	5.0%
Isolation of infected children	Yes	62	62.0%
	No	38	38.0%
keeping high hygiene	Yes	94	94.0%
	No	6	6.0%
Secure clean source of water	Yes	97	97.0%
	No	3	3.0%

Discussion

A cross-sectional analytical study was conducted to determine the pediatric gastroenteritis knowledge of one hundred parents with at least a child under five years old. The Al-Batool Teaching Hospital in the Diyala Governorate served as the

study's site. These are the family healthcare facilities that were chosen at random. The lack of sufficient knowledge possessed by the moms of GE cases has been observed in previous research (7).

Education of the parents has a significant positive impact on how they raise their kids. via their comprehension of the characteristics of AGE. As a result, they can prevent complications, shorten hospital stays, save medical expenses, and enhance the quality of life for kids (8). Regretfully, only 16% of the mothers and 18% of the fathers in our study completed high school and attended college, with 10% and 11% of them being illiterate.

The study at first, assessed mothers' awareness of the clinical characteristics of AGE in addition to its effects and prevention. The low percentage of moms (0%), who use ORS to manage AGE at home, indicates a lack of understanding of the therapy's effectiveness. According to a prior study, only 9% of parents who were encouraged to utilize ORS really did so (n=53; 32%) (9). In this study, mothers most commonly reported diarrhea (100%) as the most common symptom of pediatric AGE, followed by nausea and vomiting (72%). Most moms (59%) are aware that dehydration can result from gastroenteritis. In a different study, only 32.1% of the moms who were enrolled recognized dry mouth and thirst as clear indicators of dehydration (10).

Conclusion

The frequency of gastroenteritis was very high. Gastroenteritis was not well understood or known. At least 14% of individuals whose children had the illness

thought it was not serious and would go away on its own. This indicates that there was a negative perception of gastroenteritis and its effects on children.

Recommendations

People need to be more health-conscious and aware of the dangers of gastroenteritis in order to prevent the illness in youngsters. To lower the risk of illness, the government should provide individuals with better access to clean water and sanitary facilities. In order to prevent difficulties, caregivers should be urged to get their children medical help as soon as possible.