

Episodes of diarrhea in last calendar year, utilization of services and reasons for non-utilization of Government Health Facilities

Rao Faraz Saleem^{1*}, Usama Sakhawat¹, Ali Nauman Khan², Chaudhry Saad Sohail³, Hassan Ali³, Shehroz Aslam⁴, Allahyar³

¹Department of Internal Medicine, Akhtar Saeed Medical College, Lahore, Pakistan

²Department of Internal Medicine, Ameer-ud-Din Medical College, Lahore, Pakistan

³Department of Internal Medicine, Allama Iqbal Medical College, Lahore, Pakistan

⁴Department of Internal Medicine, Nawaz Sharif Medical College, Lahore, Pakistan

* **Corresponding author:** Chaudhry Saad Sohail, Department of Internal Medicine, Akhtar Saeed Medical College, Lahore, Pakistan, Tel: 9852641233; E-mail: chsaad105@yahoo.com

Abstract

A descriptive study was carried out among the general population of children <5years and the risk factors of diarrhea and vulnerability were observed.

Objectives

To identify cases of diarrhea in children less than 5 years in the last calendar year.

To underline the causes of such occurrence.

To find out if the affected are availing the hospital facilities present at the health care and if not then why.

Methodology

Setting: Akhtar Saeed Trust Hospital DHA EME Society

Design: Descriptive cross sectional studies.

Subjects inclusion criteria

- All diarrhea patients
- Below 5 years of age.
- Both male and female

Exclusion criteria

- patients with other GIT problems
- Above 5 years of age.

Results

Total of 24 families were enrolled. Out of which 54.2% were illiterate and 44.8% were literate, which led to 33.3% of self-medication while 66.7% of the families went to the hospital. 58.3% chose the nearest by health care centre. The overall diarrhea prevalence was 83.3%. Out of them 18 households,

collected drinking water from improved water sources and 4 had access to improved sanitation. We found a lower prevalence of diarrhea in children whose primary caretakers received hygiene education, boiled water prior to its utilisation (25%) and chose to breastfeed the babies (44.8%). Diarrhea was associated with factors such as the time consumption of the distance from home to the health care centre (25%), non-cooperative attitude of the health staff (12.5%), non-satisfaction with the medicine of public sector health facilities (4.2%) or affording class of private sector (4.2%). No gender differences were detected regarding diarrhea prevalence or the caretaker's decision to treat.

Conclusion

Our study shows that existing baseline data regarding diarrhea in Pakistan underestimated the disease burden. Awareness training concerning the use of ORS in such rural areas should be increased and existing campaigns changed to the needs of the local population. Gender inequities in care seeking behaviour seem to play a secondary role in the provision of good treatment. The results of this study can be useful in the development of future interventions aiming to reduce diarrhea occurrence in similar settings. Amongst others, our study outlines how diarrhea prevalence can be positively influenced by improving basic hygiene practices and the knowledge about this disease. Future projects should include a profound hygiene education of the local population in order to maximize the impact on children's health.

Keywords: Diarrhea; Children under 5 years; Government health facilities; Reasons for non-utilization of government facilities

Introduction

Diarrhea is one of the most important causes of death in the world. Globally, more than 10 million children die each year, of which about 1.5 million die from diarrhea. Diarrheal diseases are the leading causes of mortality and morbidity in children under the age of 5 years in developing countries and definitely threaten the attainment of Millennium Development Goal 4. Worldwide, acute diarrhea causes 16% of deaths in children under 5 years. Most of these deaths occur in low- and middle-income countries; these deaths are avoidable by the existing interventions [1].

Diarrhea is a leading killer of children, accounting for 9% of all deaths among children under age 5 worldwide in 2015. This translates into over 1,400 young children dying each day, or about 530,000 children a year, despite the availability of simple effective treatment. Most deaths from diarrhea occur among children less than 2 years of age living in South Asia and sub-Saharan Africa. Despite this heavy toll, progress is being made. From 2000 to 2015, the total annual number of deaths from diarrhea among children under 5 decreased by more than 50% from over 1.2 million to half a million. Many more children could be saved through basic interventions to improve drinking water, sanitation and hygiene (WASH) for diarrhea prevention, and the widespread use of a simple solution of oral rehydration salts (ORS) and zinc supplementation during episodes of diarrhea. Up to 350,000 children die of diarrhea every year before reaching their 5th birthday in five countries, Pakistan being one of them, according to a study [2].

The factors related to higher prevalence of diarrhea are lack of education of mother, lack of exclusive breastfeeding, breastfeeding for less than 1 year, roundworm infestation, nutritional status,

immunization status, night blindness, female sex, literacy, personal hygiene, overcrowding, garbage disposal, source of water supply, and toilet facility. 125,000 deaths per year in Pakistan are because it had not put concrete and tangible efforts in diarrhea management through improving sanitation, pure water supplies and health and hygiene measures.

In the US there were 375 million reported episodes of Diarrhea, out of which 900,000 resulted in hospitalizations and 6000 deaths. In the above-mentioned statistics 1.5 to 2 million of the affected cases were children under the age of 5 years.

This research was compared with one that was carried out in England and Wales, where Diarrhea caused 300 deaths and 35000 hospitalizations in the calendar year.

Globally, 16.5% of deaths in children under 5 years occurred due to Diarrhea. In 2004 3.6% deaths were due to diarrheal causes and the ratio is predicted to fall to 0.9 % till 2030. Implementation to improved access to oral hydration therapy and education on feeding and weaning practices should reduce mortality in under 5 age group [3].

General Overview

Diarrhea is generally described as an increase in the frequency bowel movement or the increase in the looseness of stool or both. Diarrhea is function classified adverse effect.

- 1) Water Diarrhea
- 2) Dysentery
- 3) Persistent Diarrhea

Causative agents:

Bacteria:

V. cholera, Shigella, E.coli, Salmonella, C. difficile, Staphylococcus.

Viruses

Rotavirus, Adenovirus, Caliciviruses, Astroviruses.

Parasites

E. histilica, Giardia, Isospora.

Others

Metabolic factors, Food allergies, Antibiotics, IBS

Objectives

1. To find out frequency of diarrhea among children <5 years of age as well as episode of diarrhea in last calendar year.
2. To determine factors causing diarrhea.
3. To determine utilizations of different health care services against diarrhea.
4. Reasons for non-utilization.

Hypothesis

Null hypothesis

H_0 =There is no association between social economic and demographic factors and diarrhea.

Alternative

There is association between social economic and demographic factors and diarrhea.

Purpose of the study/Rationale

Diarrhea is a major killer disease in infancy constituting about 25% of infantile deaths and it is highly prevented. If mothers and health workers are properly educated about the use of oral rehydration salt (ORS) and oral rehydration therapy (ORT).

The present study is designed to determine the timely utilization of health services and the reasons for non-utilization which will play a vital role in decreasing infant mortality with diarrhea.

Material and methods

- Setting** Akhtar Saeed Trust Teaching Hospital (ASTTH) EME sector.
Design Descriptive cross sectional study.
Duration 6 months
Universe All the infant with diarrhea coming to Akhtar Saeed Trust Teaching Hospital

Variable:

- Predicted Variable: Age, income, level of education of parents, water supply system, weaning practices, Rota virus immunization, utilization and non-utilization of health services.
- Outcome Variable: Reasons for non-utilization of health services

Operational Definition: Diarrhea, oral rehydration salt (ORS), oral rehydration therapy (ORT), Weaning and exclusive breast-feeding.

Study subjects

Inclusion

1. All children under 5 years of age visiting OPD of ASTTH.
2. All children under 5 years of age admitted in ASTTH.

Exclusion

1. All children above 5 years of age in OPD and pediatric ward.

Sample size: 30 infants and children presenting with diarrhea in OPD and pediatric ward.

Sample technique: Convenient sampling (Non-probability).

Tools of measurements: structured questionnaire

WORK PLAN

After taking permission from principal of Akhtar Saeed Medical & Dental College and MS of ASTTH, Pediatric head of the department was contacted to carry out research on structured questionnaire from the mothers of diarrhea patients in the wards and OPD. Informed consent was taken and all required information was collected. Analysis of the data was done using SPSS. Frequency and percentages will be calculated. Mean and standard deviation will be calculated for numerical data [4].

Results Detail

A total of 24 families were enrolled. Out of which 54.2% were illiterate and 44.8% were literate, which led to 33.3% of self-medication while 66.7% of the families went to the hospital. 58.3% chose the nearest by health care centre. The overall diarrhea prevalence was 83.3%. Out of them 18 households collected drinking water from improved water sources and 4 had access to improved

sanitation. We found a lower prevalence of diarrhea in children whose primary caretakers received hygiene education, boiled water prior to its utilisation (25%) and chose to breastfeed the babies (44.8%). Diarrhea was associated with factors such as the time consumption of the distance from home to the health care centre (25%), non-cooperative attitude of the health staff (12.5%), non-satisfaction with the medicine of public sector health facilities (4.2%) or affording class of private sector (4.2%). No gender differences were detected regarding diarrhea prevalence or the caretaker's decision to treat.

Discussion

Diarrhea diseases remain a major cause of child morbidity and mortality in low-income societies, and the aim of the present study was to identify risk factors to improve health care. The present study has identified a high prevalence of diarrhea among children under 5 years and pointed out various socio-demographic, immunization, and nutritional risk factors. The overall prevalence of diarrhea was found to be 83.3%.

Children whose mothers can't read and write were more likely to have diarrhea when compared with children whose mothers were literate. This finding was similar with other studies, where the prevalence of diarrhea varies according to education of mothers which was relatively high among children whose mother don't read and write. Since education provides the knowledge on the rules of hygiene, feeding and weaning practices.

The study shows high prevalence of diarrhea among the children in whom weaning has started. This may be because at this age, weaning foods are introduced and the child is exposed more to the environmental condition as it starts crawling and walking.

We found a lower prevalence of diarrhea in children whose primary caretakers prefer boiled water prior to its utilization. Diarrhea was more prevalent among children who use tap water at home.

No gender difference was detected regarding diarrhea prevalence.

Conclusion

Our study shows that existing baseline data regarding diarrhea in Pakistan underestimated the disease burden. Awareness training concerning the use of ORS in such rural areas should be increased and existing campaigns changed to the needs of the local population. Gender inequities in care seeking behaviour seem to play a secondary role in the provision of good treatment. The results of this study can be useful in the development of future interventions aiming to reduce diarrhea occurrence in similar settings. Amongst others, our study outlines how diarrhea prevalence can be positively influenced by improving basic hygiene practices and the knowledge about this disease. Future projects should include a profound hygiene education of the local population in order to maximize the impact on children's health.

Recommendation

Key measures to prevent diarrhoea include:

Access to safe drinking-water; use of improved sanitation; hand washing with soap; exclusive breastfeeding for the first six months of life; good personal and food hygiene; health education about how infections spread; and rotavirus vaccination. Key measures to treat diarrhoea include the following:

Rehydration: with oral rehydration salts (ORS) solution. ORS is a mixture of clean water, salt and sugar. It costs a few cents per treatment. ORS is absorbed in the small intestine and replaces the water and electrolytes lost in the feces. Zinc supplements: zinc supplements reduce the duration of a diarrhoea episode by 25% and are associated with a 30% reduction in stool volume. Rehydration with intravenous fluids in case of severe dehydration or shock. Nutrient-rich foods: the vicious circle of malnutrition and diarrhoea can be broken by continuing to give nutrient-rich foods – including breast milk – during an episode, and by giving a nutritious diet – including exclusive breastfeeding for the first six months of life – to children when they are well. Consulting a health professional, in particular for management of persistent diarrhoea or when there is blood in stool or if there are signs of dehydration.

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