

Editorial on Diarrhea in Children

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World Health Organization defines diarrhea as “the passage of three or more loose or liquid stools per day or more frequent passage than is normal for the individual”. Diarrhea is a form of gastrointestinal infection caused by a variety of bacterial, viral and parasitic organisms or through contaminated food or drinking water, or from person to person as a result of poor hygienic practices. It remains a major cause of mortality among under-age children (mostly under 5 years) around the world, especially in developing world. Diarrheal disease is the third leading cause of infant and child mortality in developing countries and about 1.8 million children die per annum from this disease [1]. The number of diarrheal deaths is ridiculously on the high side despite a fall in childhood diarrheal diseases from 4.6 million to 0.8 million over the last three decades [2]. Diarrhea is a leading killer of children, accounting approximately 9% of all death among children under age 5 worldwide in 2019. This translates to over 1,300 young children dying each day, or about 484,000 children a year, despite the availability of a simple treatment. According to UNICEF [3], the death caused by diarrhea among children under-5 are highest in South Asia and Sub-Saharan Africa. In Nigeria, the percentage death caused by diarrhea in children was 16%. The overall prevalence of diarrhea as of 2021 was 12.9% [4]. In 2023, according to World Health Organization, diarrhea disease death in Nigeria among children reached 144,724 or 9.77% of total death [5].

An estimated half of deaths from diarrhea among young children occur in Africa, where diarrhea is the largest cause of death among children under five years of age and also a major cause of childhood illness. The prevalence of childhood diarrhea in Nigeria is 18.8% [5]. Amongst children below five years old, diarrhea accounts for over 16 % of deaths and estimated at 150,000 annually [6]. Exposure to diarrhea-causing pathogens is frequently related to the consumption of contaminated water and to unhygienic practices in food preparation and disposal of excreta. The combination of high cause-specific mortality and the existence of an effective remedy make diarrhea and its treatment a priority concern for health services. Diarrhea is a health problem that is connected to water and sanitation, therefore can be both ‘water borne’ and ‘water washed’. Transmission of agents that cause diarrhea are usually by the faecal oral route, which include the ingestion of faecal contaminated water or food, person to person contact and direct contact with infected faeces [7].

The common causative organisms of diarrhoea in children include rotavirus, *Escherichia coli*, *Campylobacter jejuni*, *Shigella*, *Salmonella* species, *Vibrio cholera*, *Entamoeba histolytica*, and adenovirus in developing countries. Non-infectious causes of diarrhea include lactose intolerance, celiac disease, inflammatory bowel disease (e.g., ulcerative colitis), irritable bowel syndrome, chronic pancreatitis, hyperthyroidism, bile acid diarrhea, and a variety of medications [8]. Malnutrition predisposes children to increased frequency and severity of diarrhoea, whereas diarrhoea can lead to malnutrition through a variety of mechanisms, including loss of nutrients in stools and vomitus, increased metabolic demand, and poor appetite. Malnutrition has been reported to contribute to roughly half of mortality in children under the age of five. Poor breastfeeding practices associated with diarrheal diseases include a lack of exclusive breastfeeding and early initiation of breastfeeding. Controlling diarrhoea entails improving hand washing practices, rotavirus vaccination, providing safe water, improving sanitation and personal hygiene, and improving breastfeeding practices [9].

Diarrhoea-related mortality has previously been linked to severe dehydration and electrolyte derangement, but bacterial sepsis has recently been reported as a contributor to mortality with increasing frequency. This emphasizes the importance of oral rehydration solutions and antibiotics in the treatment of diarrhoea. Zinc as an adjunct therapy in diarrhoea management has been shown to reduce the duration of diarrheal episodes while increasing the interval between diarrheal episodes. Most cases of diarrhoea can be successfully treated at home with Oral Rehydration Therapy (ORT), with only a few cases requiring treatment in an emergency ward with intravenous fluid and antibiotics [10].

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