

Caregiver recognition of childhood diarrhea, and related care seeking behaviors and home treatment practices in rural Burkina Faso: A cross-sectional survey. Wilson SE, Ouédraogo C, Prince L, Ouédraogo A, Hess SY, Rouamba N, Ouédraogo JB, Vosti SA, Brown KH. PLoS ONE 7: e33273 (pp 1-8), 2012.

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<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3302832/?tool=pubmed>

Introduction

Diarrhea remains the second leading cause of childhood deaths worldwide; and diarrhea contributes to childhood malnutrition by suppressing appetite, reducing intestinal absorption and modifying nutrient metabolism. In 2004, the World Health Organization and UNICEF issued revised guidelines on diarrhea treatment, which include the use of low osmolality oral rehydration solution (ORS), zinc supplementation to reduce the duration and severity of illness, and selective use of antibiotics, in addition to appropriate dietary therapy (namely, continued breast feeding and provision of appropriate complementary foods). However, initiation of proper treatment for diarrhea depends on child caregivers first recognizing the illness symptoms and seeking appropriate professional care when needed. Previous studies in West Africa indicate that caregivers often fail to recognize diarrhea symptoms, and therefore neglect or delay treatment (Cogswell, 1991; Winch, 2008). The authors of the present study examined diarrhea recognition, home treatment practices and care-seeking behaviors in rural Burkina Faso, in preparation for a planned revitalization of the national diarrhea treatment program, including therapeutic zinc supplementation.

Methods

The study was carried out as the first phase of a community-based, diarrhea treatment trial conducted among young children in rural southwestern Burkina Faso. A cross-sectional, baseline survey was completed to elicit information on disease perception and treatment, so as to assist with the development of messages designed to motivate caregivers to seek community-based care for diarrhea. The investigators defined diarrhea according to the clinical criteria of 3 or more liquid or semi-liquid stools/day.

Caregivers of 10,490 children less than 27 months of age were interviewed to assess child diarrhea prevalence (based on reported stool excretion patterns) and related caregiver perception of illness, home treatment practices, and care-seeking behaviors. Characteristics of households, caregivers, children, and reported illnesses were compared for those caregivers who did or did not recognize the presence of clinically defined diarrhea. Multiple logistic regression models were used to examine factors associated with illness recognition and treatment.

Results and Conclusions

Clinical signs of diarrhea were present in 7.6% (95% CI: 7.1–8.1%) of children during the 24 hours preceding the survey, but the symptoms were reportedly recognized as diarrhea by only 55% of caregivers of those children. Among caregivers of the 1,067 children with a clinically defined diarrhea episode in the past 14 days, only 55% sought care outside the home; 78% of those seeking care attended a public sector clinic. Care was sought and treatment provided more frequently for children with diarrhea when the illness was accompanied by fever, vomiting, or anorexia, when the episode was of longer duration, and among families who resided closer to the health center; and care was sought more frequently for male children. 80% of children with recent diarrhea received some form of treatment. However, only 24% received ORS, whereas 14% received antibiotics. Zinc supplements were not yet available in the study area.

In conclusion, child caregivers in the study area frequently failed to recognize the presence of diarrhea, especially among younger infants and when signs of illness were less severe. Moreover, in general, the treatment practices were not consistent with international recommendations, even when caregivers consulted with the formal health services. The authors concluded that child caregivers need additional assistance to recognize diarrhea correctly, and both caregivers and health care providers need updated information on recent diarrhea treatment recommendations, as described above.

Policy and Program Implications

As diarrhea control programs roll out the revised diarrhea treatment recommendations, including therapeutic zinc supplementation, it is important for program managers to review local perceptions of illness and usual care-seeking and treatment practices, and to develop appropriate educational messages in relation to this locally obtained information. The current survey information also suggests that professional staff may need to be retrained in the revised diarrhea treatment guidelines to ensure that their knowledge and practices are consistent with current recommendations.

NNA Editors' comments*

The present study confirms previous research in West Africa indicating that child caregivers often fail to recognize diarrhea episodes in their children. This observation not only has important implications for care-seeking and treatment of childhood diarrhea, but also needs to be considered by those responsible for planning logistical support and professional training for diarrhea control programs. For example, if ORS and zinc supplements are ordered based on the number of diarrhea episodes, as estimated from epidemiological data, the actual number of cases that are recognized by child caregivers may fall far short of the number that are expected, thereby resulting in excessive procurement of treatment supplies and wasted resources. Additionally, if clinical staff members of formal health facilities are not adhering to current treatment guidelines, supply procurement may not be synchronized with actual use, and clinical outcomes may be less than optimal. Thus, formative research should be conducted as countries are scaling up enhanced diarrhea treatment activities to determine how best to design the program.

* These comments have been added by the editorial team and are not part of the cited publications.

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