

Abstract

Diarrhea remains a major public health problem in East African nations such as Kenya. Children are one of the most susceptible groups due to their naïve immune system coupled with their unique vulnerabilities to environmental factors. Unhealthy environments, indoor pollution, poor drainage/sanitation, inadequate waste disposal among others, are significant environmental risk factors that predispose children to diarrhoea diseases. A cross sectional study was conducted in Igembe District Hospital-Kenya, with an aim of determining the factors associated with bacterial diarrhea among children under five years. Questionnaires were administered to the 308 study participants to identify the risk factors. Data was analyzed using *Epi Info* version 3.5.3. The mean age of children was 27.2 months and age range between 2-60 months. Several factors were independently associated with diarrheal diseases including; Occupation of the parent/guardian (miraa business) (OR=1.8, p-value= 0.002), Care taker not washing hands after changing napkins (OR= 3.8, p-value=0.001), children drinking water from the river (OR=2.7, p-value = 0.001) and children not exclusively breastfed (OR= 3.4, p-value = 0.001). Washing of hands before eating (OR= 0.3, p-value =0.004) and after visiting toilet (OR= 0.7, p-value=0.002) were both found to be protective factors against diarrhea. Several factors had significant association with diarrhea illness. Encouraging exclusive breast-feeding, discouraging the irrational use of antibiotic for the treatment of acute diarrhea, provision of safe drinking water and educational efforts to change hygienic practices can reduce significantly diarrhoea incidence. The study recommends multifaceted approach that acknowledges the public health aspects that would reduce the burden of diarrhea infection as identified in the study.