

**Title: Mother's knowledge and practice of home care management of diarrhoea and risk factors in under 5 years in Nakuru, Kenya.**

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Diarrhoea causes 1.8 million deaths each year worldwide and 90016 of the deaths occur in children under 5 years. In less developed countries, a child has 6 to 8 episodes of diarrhoea per year. Kenya is one-amoung 15 countries in Africa and Asia that account for 75% of childhood diarrhoea deaths in children under 5 years. Kenya has an average of 4-5 episodes per child per year. At Nakuru general hospital, out of 1070 childhood diarrhoea admissions, there were 61 deaths in 2007. Policies such as Control of Diarrhoeal Diseases (CDD) 1993~ IMCI 1997, IMCI Household Component 2000, Hand Washing Policy 2009 and Revised CDD 2010 were formulated to provide guidelines on the control and management of childhood diarrhoea yet diarrhoea disease continues to be a major cause of disease burden. Various programmes such as maternal child health (MCH), expanded programme on immunization (EPI), control of diarrhoea diseases (CDD) and integrated management of childhood illnesses (IMCI) were introduced in order to improve the quality of care and reduce morbidity and mortality and improve child survival. Studies have shown that mothers can give ORS at home, reduce hospital visits and therefore cut down on the treatment cost for diarrhoea disease. In Nakuru municipality in 2007, Baharini location diarrhoea was the second commonest cause of morbidity after pneumonia. Mothers were not able to provide appropriate treatment regimes leading to deterioration of the condition and delay in treatment. This is a barrier to achievement of MDG No.4 on child survival and achievement of Kenya's Vision 2030 of economic growth. This study was conducted in this peri-urban cosmopolitan area. The aim of the study was to assess the knowledge of mothers on signs of dehydration and complications of diarrhoea, determine the management regimes used by mothers during diarrhoea and identify household risk factors for diarrhoea transmission in children under 5 years of age in Baharini location, Nakuru municipality. Data was collected using pre-tested questionnaires and an observation checklist. Four hundred mothers of children under 5 years of age were interviewed. The respondents in the study were identified using simple random sampling where households/house blocks were selected using a table of digits. Data was analyzed using Chi-square test. The results showed that at the time of the study, there had been 41.5% diarrhoea episodes in the previous 6 months. Eleven point five percent (11.5%) of the respondents knew early signs of dehydration. Although 17.25% of the respondents knew that ORS was used to treat diarrhoea, only 7.75 % used ORS. Chi-Square test = 21.48 P value > 0.05 and the differences were considered significant. Eighteen point two percent (18.25%) of the respondents had adequate skill for preparing ORS. Carbohydrate foods were offered to children by 66% of the respondents but only 2% offered protein foods. It was observed that 51.75% of the households had poorly disposed domestic refuse although 73.25% of the respondents knew proper method of refuse disposal. Chi-square test = 34.44 and P value > 0.05, the differences were considered significant. Excreta was poorly disposed by 36.75% of the households. The study concluded that majority of the mothers had inadequate knowledge on signs of dehydration and

complications of diarrhoea. Most mothers used inappropriate treatment regimes to manage diarrhoea. The methods used to dispose refuse and excreta in the household were high risk factors for diarrhoea transmission. The study recommended that the Clinicians should communicate appropriate information and skills to mothers on identification of early signs of dehydration and complications of diarrhoea and appropriate diarrhoea management regimes. The Ministry of Medical services should ensure that ORS sachets are available and accessible to mothers in the location. The Ministry of water should consider developing policies that promote chlorination of drinking water at the household level. The department of public health should ensure that proper standards of sanitation in refuse and excreta disposal are maintained to reduce risk of diarrhoea transmission. The department should also consider methods of increasing excreta facilities in some of the estates such as Manyani and Lakeview.