

The Effect of an Integrated Nutrition Care Intervention on the Nutritional Status of Children Orphaned and made Vulnerable by HIV/AIDS in Kilifi District, Kenya

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A Thesis submitted in the Partial Fulfilment for the Degree of Doctor of Philosophy in Public Health in the Jomo Kenyatta University of Agriculture and Technology

2011

ABSTRACT

The emergence of HIV/AIDS has had devastating effects on nations, communities and families. This pandemic has led to many children being left as orphans and in socially vulnerable situations. In sub-Saharan Africa, there are 11.4 million orphaned children and others made vulnerable due to HIV/AIDS epidemic. The nutritional status of these children has been compromised because of the HIV/AIDS pandemic. This study was carried out in Kilifi District, Kenya. It is one of the districts in Kenya with a high prevalence of HIV/AIDS. The main objective of the study was to assess the effect of an integrated nutrition care intervention in improving the nutritional status of children aged 6 -14 years orphaned and made vulnerable by HIV/AIDS. A longitudinal quasi-experimental study was carried out in selected households of two adjacent divisions of Kilifi District. Two-stage sampling was used to identify the target households. Random sampling was used to identify the study subjects from the selected households. The children were selected from 153 households for the two sites. A sample size of 138 children were included in the study for each group (experimental and control). The experimental group were put on an integrated nutrition care intervention which included; food rations, health and nutrition education, de-worming tablets and Vitamin A supplements, whereas the control group were only given de-worming tablets and Vitamin A supplements. The Statistical Package for Social Sciences (SPSS) Software was used in data analysis. Pearson's Chi-square test or Fisher exact test were used to test for the strength of association between two categorical variables and Binary Logistic Regression was used to model nutritional outcome. The level of significance was 0.05 ($p=0.05$) with a 95% Confidence Interval. Epi-Info Anthro' software package was used to analyze child anthropometry data. Nutri-survey package was used to analyze the nutrients in the children's diet. The research tools used for data collection were

questionnaires, observation checklist, anthropometry measurements, clinical nutrition examination and a 24-hour dietary recall. The overall findings of the study at baseline show that 18.8% of the children were stunted, 26.1% underweight and 17.8% were wasted. Stunting had similar proportions (18.8%) in both study areas at baseline. Underweight was 29.7% among the controls and 22.5% in the experimental group. Wasting was 18.8% among the controls and 16.7% in the experimental group. In both study groups, overall stunting reduced insignificantly ($p=0.325$) from 18.8% to 15.5%, underweight reduced significantly ($p=0.006$) from 26.1% to 15.9% and wasting ($p=0.027$) from 17.8% to 10.8% between baseline and endline evaluation. There was significant reduction ($p<0.05$) in malnutrition among the children in the experimental group in all the three phases, but there was no significant reduction ($p>0.05$) in malnutrition among the children in the control group. Other factors found to significantly influence the nutritional status (height-for-age) of the study children were; the treatment group ($p=0.002$) and average total monthly income ($p=0.050$), whereas for underweight, only the treatment group ($p=0.050$) and for wasting, the treatment group ($p=0.015$) and existence of both parents ($p=0.019$) affected the weight-for-height of the children. These findings show that the integrated nutrition care intervention had positive effect on the overall nutritional status of the study children. The results of this research project therefore can be used to inform policy and assist in planning for more effective interventions which will assure nutrition security and improve the quality of life of orphans and vulnerable children in Kenya and beyond.