Effectiveness and challenges of Insta prescribed porridge on nutritional status of under 5 malnourished HIV/AIDS children at Lea Toto, Kangemi, Nairobi, Kenya

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Abstract:

A lot is published on the role of good nutrition in mitigating the effects of HIV/AIDS, but little is known about the effectiveness of prescribed diets (Food by Prescription (FBP)) in malnourished HIV infected children. The aim of the study was to determine the effectiveness of a prescribed porridge blend, branded 'Insta First Food (FF)', in improving the nutritional status of malnourished HIV infected children below 5 years attending Lea Toto comprehensive care centre, Kangemi slum, Nairobi. FF is a combination of whole maize (Zea mays L.), millet (Eleusine coracana (L.) Gaertn.), sorghum (Sorghum bocolor (L.) Moench), soya (Glycine max (L.) Merr.), sugar (Saccharum officinarum L.), oil, with added vitamins and minerals. The study was a quasi experimental design that compared nutritional status at baseline (entry) and final (exit). 234 HIV infected children aged 6-59 months with a Z score < -2 were eligible. The children completed the study when they attained a Z score > -1, relapsed, died or failed to achieve a Z score > -1 after 3 months. (July - October 2008). A questionnaire on socio-demographic/economic factors was administered to the caregivers and supplementary data such as infections suffered from were derived from medical records at the study centre. Chi-square was used to test associations between dependent variables (Z scores), and independent variables. A paired T-test was performed to test for mean difference between baseline and after intervention. Frequency distribution on individual variables was undertaken and cross tabulations between all categorical variables and Z-scores performed to uncover the distribution patterns. Pearson chi-square test was performed to test for association between Zscores and individual categorical variables. 81.2% attained a Z score of > -2 in 2 or 3 indicators (WAZ, HAZ and WHZ) whereas only 18.8% had 0 or 1 indicator showing > -2 after 3 months period. Weight gain was significant (p<0.05). Inconsistency in improvement of Z scores was significantly linked to socio-demographic/economic factors especially age of child (P=0.002), relationship of caregiver to child (P=0.072), correct porridge preparation (P=0.020) and age of caregiver (P=0.071). There was significant association between training and correct porridge preparation (p<0.001). Children aged 0.5 - < 2 years were 3.3 times more likely to improve their nutrition status as compared to those above 2 years; correct food preparation placed a child at 2.6 fold better than wrong preparation; children with caregivers aged ~30 years were 1.9 times more likely to improve. Addressing malnutrition in HIV infected children should entail an integrated programme that addresses nutrition and socio demographic/economic factors such as age of child and caregiver, training on food intervention, family planning, medical and child care.