

Author: Michael Wiafe

Co Author: Reginald Annan, Herman Luterrodt, Victoria Dzugbefia (Kwame Nkrumah University of Science and Technology)

Topic: Malnutrition treatment and prevention

Title: Developing and Testing the Acceptability of Therapeutic Food for the Management of Severely Malnourished Children

Presentation Type: Poster

INTRODUCTION

Therapeutic food imported for treating childhood malnutrition comes with huge cost and puts pressure on already strained health systems in poorly resourced countries. We developed and tested the acceptability of a therapeutic food made from local agricultural produce for the management of severe malnutrition.

METHODS

Three different therapeutic formulations were developed from the combinations of varied proportions of the ingredients (Soybean, banana, coconut water, sugar and vegetable oil). The resultant products were labelled Samples 519, 586 and 588. Sensory analysis was performed using 50 mothers with children under five years to determine the most preferred sample with regards to taste, appearance, flavour, sweetness and consistency.

RESULTS

Sample 586 was most preferred for appearance whereas Sample 519 was most preferred for consistency, sweetness and taste/flavour. Sample 519 was judged the most preferred. The chemical analysis revealed energy and protein content of 95.96 kcal and 1.61 g per 100 g respectively, and concentration (mmol/100ml) of Calcium (0.74), Magnesium (1.09), Potassium (4.79), Sodium (0.17), Phosphorus (0.28), Iron (0.0080), Copper (0.0064), Manganese (0.0089) and Zinc (0.0174). The microbiological examination indicated aerobic plate count (20cfu/ml), yeast count (8.5cfu/ml), coliform count (3cfu/ml) and zero count for both mould and E. Coli.

CONCLUSION

A therapeutic food formulated from locally available ingredients was acceptable to mothers. Its energy content closer to F-100, slightly different in protein and minerals

compared with other therapeutic foods and meets microbial load standards for RUTF. Efficacy studies among children with malnutrition to be carried out while a more solid version developed.