FOOD -TO -FOOD FORTIFICATION OF COMPLEMENTARY FOOD USING LOCAL STAPLES RICH IN MICRONUTRIENTS

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Abstract

Micronutrients deficiency has continued to be the greatest nutritional problem of the infants especially in the developing countries like Nigeria. The study assessed the nutrient composition of complementary foods based on sorghum and fortified with soybean, Moringa oleifera and plantain flour. The raw materials were purchased from Ogige market, Nsukka, Enugu State, Nigeria. Three complementary test gruels were developed by blending sorghum (fermented), soybean (boiled and dehulled) and moderately ripe plantain flour in different ratios (65:30:5, 60:30:10, 55:30:15). The flour and the complementary foods were analyzed for their nutrient and antinutrient compositions using standard methods. The data generated were analyzed statistically. The test gruels especially the 60:30:10 blend had both higher energy and nutrient contents. There is no significant difference in protein between the test gruels and the control (p > 0.05). The antinutrient contents were within safe levels. The nutrient density of the test products were higher than the control (P<0.05), however, the sensory ratings of the control product (Nutrend-commercial complementary food) were higher than the test product. The 60:30:10 blend if improved upon can be useful in solving problem of cost intensive proprietary complementary foods and stem-off infants’ malnutrition in the region.

Keywords: Food fortification, complementary food, staples, blend, micronutrients, antinutrients