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Topic: Malnutrition treatment and prevention

Title: EFFECT OF FORMULATED DRINK AND SNACK FROM COCOA, MORINGA, COMPOSITE FLOUR AND EWE ERAN (THAUMATOCOCCUS DANIELLI) AS AN ORGANIC SWEETENER ON THE NUTRITIONAL STATUS OF WISTAR RATS.

Presentation Type: Poster

Micronutrient deficiencies cause an estimated 1.1 million of the 3.1 million child deaths that occur each year as a result of under nutrition. The study therefore investigates the effect of formulated nutritional supplements on the nutritional status of Wistar rats using formulated nutritional drinks and snacks from cocoa and Moringa in combination with Ewe eran (*Thaumatococcus danielli*) as an organic sweetener.

Twelve Wistar rat weighing 120 g was subjected to formulated drinks and snacks to determine the nutritional effects. The rats were fed for two weeks, after the initially acclimatization, and grouped into three groups equally, the first group were given the formulated drinks, the second group formulated bread and third group was the control. The first group were given 1ml of the drinks with the normal rat diets, the drink composed of Moringa, cocoa and spices, while the second group were given the formulated bread from Cocoa, Moringa, and Cassava flour using Ewe eran (*Thaumatococcus danielli*) as an organic sweetener with normal drinking water, and the control group were given normal rat diets. At the end of the two weeks, the experimental rats were weighed before they were sacrificed and there was a significant difference in their weight. Blood samples were collected to determine micronutrient (vitamin A, iron, zinc, calcium and iodine) level in the experimental rats blood serum.

Experiment revealed a significant ($p \leq 0.05$) increase among the treatments in respect to the micronutrient status of the experimental rats when compared with the control group.