

Acceptability of a mushroom enriched composite flour and porridge among child/mother dyads (6-24months) at Nabongo dispensary, Kakamega County, Kenya

Abstract

There has been increased emphasis on the consumption and utilization of affordable, and locally available indigenous foods in formulating food supplements due to the evidence-based nutritional and pharmacological value. Several studies have been devoted to how best these foods can be prepared, singly or as composites to come up with safe and nutritious foods that are acceptable to the target population. One of such composites that include oyster mushrooms and orange-fleshed sweet potatoes, millet, pumpkin seeds, and milk powder has been successfully developed at Masinde Muliro University of Science and Technology, Kenya. The flour with the acronym MMUSTMUG is rich in thiamin, fiber, low in fat, sodium free, good source of iron, and high in vitamin A. Acceptability of this flour is, however, key to it being embraced by the target population. The objective of the current study was to assess the acceptability of both the flour and its porridge in a cross-sectional study among 50 mother-child dyads at Nabongo dispensary in Kakamega County. Questionnaires on the appreciation of the food were administered to establish sensory liking and general acceptability of the porridge and the flour by the caregivers. These were assessed on a five-point hedonic scale. General comments by the mothers/caregivers were recorded verbatim. The porridge was considered acceptable if the child consumed at least 75% of the 100mls served. Means and standard deviations were calculated for the liking of the sensory attributes of the food. Among the participating children, 76% (n=38) consumed ≥ 75 mls of the served porridge. The means and the standard deviations of the liking for the sensory attributes of the porridge by the parents/caregivers were: (4.78 \pm 0.58) for color, (4.76 \pm 0.48) for aroma, (4.82 \pm 0.44) for taste and (4.80 \pm 0.50) for texture whereas the sensory evaluation of the porridge by infants stood at (4.14 \pm 1.20) on first sight of the porridge, (2.72 \pm 1.58) when child first received porridge and (4.38 \pm 0.97) on subsequent offers of the porridge. The color, aroma and texture of the flour were also highly rated. There was a positive correlation (Pearson's correlation) between the age of the child and the amount of porridge consumed. Both MMUSTMUG flour and porridge were acceptable to the study population and because of the better nutritional value should be promoted in the target population to help manage malnutrition.

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