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P377/S6-P56 A COMPARATIVE STUDY OF THE EFFECTIVENESS OF A LOCAL FORTIFIED FOOD AND PEANUT-BASED READY-TO-USE THERAPEUTIC FOOD (RUTF) FOR OUTPATIENT TREATMENT OF CHILD MALNUTRITION: A COMMUNITY TRIAL IN SAN SALVADOR

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Introduction. Acute malnutrition affects 45.4 children under five globally, which is caused by a deficiency in energy or nutrient intake that negatively impacts immune and physical development. Resulting rapid weight loss contributes to wasting, described as a Weight-for-Height Z-score (WHZ) ≤-2 SDs of the WHO child growth standards. In Central America, wasting prevalence is low (0.9%), but El Salvador currently holds double the burden (2.1%). Present treatments for wasting involve energy-and-nutrient-dense foods including Ready-to-use Therapeutic Foods (RUTF). In El Salvador, a cereal blend named Biofortik, made of maize and sorghum fortified with micronutrients was formulated to replicate the local porridge drink, Atole. Objective. To determine the bioequivalence between the RUTF and Biofortik for co-deployment to treat acute malnutrition in children aged 6-59 months. Methods. A quasi-experimental design was undertaken in 2021 among 108 children in metropolitan San Salvador. Health clinics were randomly assigned to provide acutely malnourished children the RUTF or Biofortik and monitor their weight gain through regular check-ups. Once a child achieved a WHZ greater than -2 SD, they were discharged from the trial. Differences in wasting recoveries by treatment group and variations in WHZ score were compared. Results. Our findings demonstrated significant increases to WHZ scores in both the Biofortik and RUTF groups ($p<0.05$). At enrollment, children receiving Biofortik displayed a lower mean WHZ score of -2.86, compared to -2.44 in the RUTF group ($p<0.001$). However, no differences in WHZ scores at discharge were shown with mean scores of -1.87 and -1.65 for children who received the RUTF or Biofortik respectively ($p=0.75$). Both treatments contributed to similar weight gain rates and length of stay in the program ($p>0.05$). When considering contextual group differences, those living in a rural setting were more likely to receive Biofortik compared to the RUTF ($p<0.05$). Nevertheless, this was not shown to contribute to final recovery status among this sample ($p=0.33$). Conclusions. Our findings support the hypothesis that Biofortik demonstrated nutritional equivalency to the RUTF in treating children with acute malnutrition. These preliminary results were limited by a small sample size, indicating the potential for an expanded intervention.

Keywords: child, malnutrition, outpatient, effectiveness

P378/S6-P57 CHILEAN CHILDREN'S ADHERENCE TO SUSTAINABLE HEALTHY DIETS AND ITS ASSOCIATION WITH SOCIODEMOGRAPHIC AND ANTHROPOMETRIC CHARACTERISTICS

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Introduction. Few studies have quantified children's adherence to sustainable healthy diets, and none have explored whether adherence varies with child or maternal characteristics. Objectives. To describe adherence to sustainable healthy among a sample of 958 Chilean preschoolers (3-6 years) from the Food Environment Chilean Cohort (FECHiC) and explore associations between adherence and child and maternal sociodemographic and anthropometric characteristics. Methods. A single 24-hour multi-pass dietary recall, collected by trained dietitians in 2016, was used to describe FECHiC participants' adherence to the Planetary Health Diet Index for Children and Adolescents (PHDI-C). Adjusted linear models were fitted to explore associations in total and individual component scores with child and maternal characteristics. Results. This sample of Chilean children obtained low PHDI-C total scores (median 50.0 [IQR 39.5–59.8] out of 150 points). This was due to low reported consumption of nuts & peanuts, legumes, vegetables, whole cereals, and vegetable oils; a lack of balance between dark green and red & orange vegetables, inadequate (either low or excess) consumption of tubers & potatoes and eggs & white meats, and excess consumption of dairy products, palm oil, red meats, and added sugars. Mean PHDI-C total score was significantly higher (50.63 [95%CI 49.60, 51.66] vs 47.26 [95%CI 44.97, 49.54]) among children whose mothers were ≥25 years compared to those with younger mothers. We observed positive associations between scores for fruits and maternal education, vegetables, and maternal age, and added sugars and child weight status, and negative associations between scores for fruits and child age, and vegetable oils and maternal education. Scores for dairy products were lower among girls. Conclusions. Our findings support the need for strategies targeting the low consumption of nuts & peanuts, legumes, vegetables (particularly dark green vegetables), and whole cereals, and high consumption of dairy products, palm oil, red meats, and added sugars, particularly among children with younger mothers and mother with low levels of education. Triple-duty actions aimed at increasing access to and affordability of minimally processed foods and decreasing the availability of animal-source foods and ultra-processed products might contribute to achieving sustainable healthy diets among children.

Keywords: chilean preschoolers, anthropometric characteristics, healthy diets, fruits, vegetables, maternal education