Pengembangan dan uji penerimaan biskuit terfortifikasi berbahan dasar pangan lokal untuk anak pendek sedang berumur 12-24 Bulan di Dompu Nusa Tenggara Barat = Development and acceptability trial of fortified local based biscuit for moderatly stunted children 12-24 month old in Dompu West Nusa Tenggara / Renny Permatasari

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Abstrak

ABSTRAK
Makanan terfortifikasi yang merupakan salah satu pendekatan berdasar makanan dapat dijadikan salah satu intervenesi untuk mengurangi angka kejadian pendek sedang pada anak dibawah lima tahun. Pada studi ini, level fortifikasi dihitung berdasarkan kesenjangan antara kebutuhan nutrisi dan pengoptimalan makanan pendamping yang dikembangkan berdasarkan pendekatan linear programming. Studi ini dibagi menjadi tiga fase; 1) pengembangan rekomendasi makanan pendamping menggunakan perangkat lunak OPTIFOOD , 2) pengembangan biskuit terfortifikasi, dan 3) uji penerimaan biskuit dengan desain tiga lengan silang acak. Lima puluh satu anak ikut serta pada uji penerimaan. Tepung jagung, tepung kacang kedelai, dan bubuk daun kelor digunakan sebagai bahan baku utama biskuit. Sembilan zat gizi ditambahkan sebagai fortifikan yang ditambahkan pada high nutrient dense fortified biscuit (zatbesi, seng, kalsium, B1, B3,B6 asam folat, B12, dan vitamin A) dan delapan zat gizi (kecuali vitamin A) ditambahkan pada standard nutrient dense fortified biscuit. Anak-anak dapat mengonsumsi 80%, 75%, dan 70% biskuit tidak terfortifikasi, standard nutrient dense fortified biscuit, and high nutrient dense fortified biscuit. Kebanyak pengasuh menyukai aroma dan warna dari biskuit tetapi kurang menyukai teksturnya (dengan nilai uji pengindaraan berurutan 2.08 dan 2.20). tidak ada perbedaan yang nyata pada ketiga jenis biskuit tersebut.
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ABSTRACT
Fortified food as one of food based approach can be used as intervention to reduce prevalence of moderate stunting. In this study, fortificant level was calculated based on the gap between requirement nutrient intakes (RNI) and optimized complementary feeding developed using linear programming approach. This study was divided into three phases; 1) developing optimized complementary feeding recommendation using OPTIFOOD software, 2) developing the fortified biscuits, 3) biscuit acceptability trial with three arms randomized cross over design. Fifty one children participated in acceptability trial. Corn flour, soy flour, moringa leaves powder were used as the main ingredients of biscuits. Nine nutrients (iron, zinc, calcium, B1, B3,B6, folate, B12, Vit A) were added as fortificants in high nutrient dense fortified biscuit and eight nutrients (except Vit A) were added in standard nutrient dense fortified biscuit. The children could consume 80%, 75% and 70% of unfortified, standard nutrient dense fortified biscuit, and high nutrient dense fortified biscuit respectively. The majority of caregiver liked the aroma and color of biscuits but less of texture for standard and high nutrient dense fortified biscuit (with organoleptic score 2.08 and 2.20, respectively). There was no significant difference among the three types of biscuits.