

ORIGINAL RESEARCH

Effect of Food-Based Nutrition Education Intervention on Nutrition Knowledge, Attitudes, Practices and Food-use Among School-age Children in Homa-Bay, Kenya

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Micronutrient malnutrition (hidden hunger) is still a major problem in Kenya and other developing countries, particularly among school-age children who are rarely targeted by nutrition interventions. Studies indicate that food-based nutrition education (FBNE) interventions are effective in improving the adoption of recommended nutrition practices among school-age children. However, there is little evidence of the effectiveness of such interventions in developing countries such as Kenya. This study aimed to assess the effects of a FBNE intervention on nutrition Knowledge, Attitudes and Practices (KAP) and food use among grade six children in Ndhiwa Sub-County, Homa-Bay County, Kenya. A pre-post quasi-experimental design with intervention and control groups was used and was conducted from January to March 2021. The intervention was implemented using a FBNE curriculum developed using the health belief model constructs and was piloted with grade six Kenyan school children in 2 schools in Ndhiwa, Kenya. Participants in both the intervention and comparison groups were highly knowledgeable on handwashing prior to the intervention which was attributed to hygiene campaigns during COVID-19; and this remained similar postintervention $p=0.22$ and $p=0.13$, respectively. After the intervention, the intervention group had higher positive attitudes regarding handwashing ($p=0.01$) and practiced more handwashing ($p=0.03$) than the comparison group. Knowledge scores ($p=0.0001$), attitudes scores ($p=0.0001$), barriers scores ($p=0.002$) and practices scores ($p=0.002$) related to iron and zinc were significantly higher in the intervention than in the comparison group. Similarly, knowledge scores ($p=0.004$), attitudes scores ($p=0.002$) and practices scores ($p=0.0001$) related to Vitamin C and β carotene were also higher in the intervention group than in the comparison group. In addition, kitchen gardening knowledge ($p=0.01$) and attitudes ($p=0.01$) increased significantly in the intervention group relative to the comparison group. Food-based nutrition intervention is effective on nutrition KAP of the school children and more opportunities within and outside the formal curriculum should be explored to reach the children with more context-based information for positive behaviour change to end micronutrient deficiencies among adolescents. Longitudinal studies to investigate the long-term effects of this food-based intervention on nutrition KAP, and dietary behaviour change and associations with micronutrient status.

Key words: Food-based Nutrition Education, Knowledge, Attitudes and Practices (KAP) , School-age Children, Kenya.