

The Effectiveness of Supplementary Feeding of Snack Based on Local Food and F100 on Improving Nutritional Status of Moderately Underweight 6-35 Month-Old Rural South Tangerang Children

'IskariNqadiarti, Betty Yosefin, 'Irfani Anwar
'Department of Nutrition, Health Polytechnic Jakarta II
Department of Nutrition, Health Polytechnic Bengkulu
Email address: iskariNqadlarti@gmail.com

BACKGROUND - Children with moderately underweight have an increased risk of morbidity, mortality and impaired physical and cognitive development compared to well-nourished children. Formula 100 and its modifications, as it are recommended by the WHO, is a nutritional therapy for severe underweight status, but has not been tested as a nutritional support for underweight children.

OBJECTIVE -The aim of this study is to evaluate the growth and recovery from undernutrition among moderately underweight children receiving snacks based on local food and F100 (MD).

METHODS - Method applied a Quasi experiment on 76 underweight toddlers with 36 treatment group and 30 controlled group. The treatment group will be given 2 cups of snack or creamy food made of local flour and F100 (320 kcal, protein 4.6 g), while the control group will be given 2 sachets of F100 (200 kcal, protein 6 g). The experiment will be conducted for 4 weeks. Weight, height, and obedience will be monitored every week, while the energy intake and vitamins will only be counted twice, before and after the intervention. This data will be implemented to measure the increasing of anthropometry and nutritional improvement.

RESULTS - Results indicated that at the end of the study, the children in the intervention group had a higher mean weight 27 g than the control group ($p < 0.05$), while an increase in height has not been seen in both groups. The average value of the z-score of weight for age increased by 0.23 in the treatment group and 0.24 in the control group, the average value of z scores of weight for height increased from 0.28 in the treatment group and 0.39 in the control group. Both interventions are equally giving change thin nutritional status (underweight), and poor nutritional status (wasting) to be normal, but the proportion of the increase is higher in the intervention group than the control group.

CONCLUSION - In conclusion modified F100 and F100 with local flour can be used as an alternative snack as a form of nutritional support for underweight children.