ABSTRACT

Changes in Body Weight Following Local Supplementary Feeding among Children Under Five in Berau

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Background : Nutritional problems among children under five remain an important public health concern because adequate nutrition is essential for optimal growth and development. Local food-based supplementary feeding is provided to children with nutritional problems to support dietary intake and growth. Monitoring body weight during the feeding period can provide information on short-term changes among participating children.

Objective : This study aimed to assess changes in body weight among children under five before and after receiving local food-based supplementary feeding at Merancang Public Health Center, Berau.

Research Methods/ Implementation Methods : This pre-experimental study used a one-group pretest-posttest design analyzing secondary data from a program conducted from July 15 to 29, 2026. The intervention utilized local food menus made from local ingredients including chicken, fish, eggs, quail eggs, tofu, potato, carrot, corn, mung bean, and bihun served as risoles, stuffed tofu, siomay, fritters, martabak, porridge, fish balls, and egg satay, along with fruits like banana, papaya, orange, and watermelon. The study included 35 children with complete weight measurements before and after the feeding period. Changes were analyzed using descriptive statistics and a paired t-test (α=0.05).

Results :Mean body weight increased significantly from 10.77 kg to 10.98 kg (mean increase of 0.21 kg; $t = 4.691$, $p < 0.001$\$). Of 35 children, 31 (88.6%) gained weight, 3 (8.6%) lost weight, and 1 (2.9%) showed no change.

Conclusion/Lesson Learned : Body weight increased significantly during the local supplementary feeding period. However, because the study lacked a control group, the observed change cannot be attributed solely to the supplementary feeding intervention.

Keyword : children under five; body weight; supplementary feeding; local food; child growth