doi:10.1017/S1368980010002405

Impact of group-based dietary education on the dietary habits of female adolescents: a cluster randomized trial

Kazue Yamaoka[1,*], Mariko Watanabe[2], Eisuke Hida[1] and Toshiro Tango[1]

[1]Department of Technology Assessment and Biostatistics, National Institute of Public Health, 2-3-6 Minami, Wako, Saitama 351-0197, Japan; [2]Department of Human Nutrition, Graduate School of Human Ecology, Showa Women's University, Tokyo, Japan

Submitted 20 October 2009: Accepted 1 July 2010

Abstract

Objective: The number of extremely thin young women has increased and education at school on maintaining an optimal weight has become important. The aim of the present study was to assess the effectiveness of a group-based home-collaborative dietary education (HCDE) programme to maintain appropriate dietary intake compared to conventional school classroom education.

Design: Two-arm cluster randomized controlled trial. Twelve classes were randomly assigned as clusters to either the HCDE group or the control group. Each participant in the HCDE group received twelve sessions of group counselling aimed at increasing energy intake at breakfast by modifying dietary intake and adopting appropriate habits. The hypothesis underlying the study was that after 6 months of HCDE the total energy intake would be increased by 627 kJ from baseline (primary endpoint). Secondary outcomes were differences in intake of various nutrients from baseline. Outcome measures after log transformation were examined by *t* tests and linear mixed models (crude and baseline-adjusted).

Setting: Young women among Japanese female adolescents in Tokyo.

Subjects: Four hundred and seventy-four participants aged 13–15 years.

Results: Students in twelve classes were used for analysis (n 459). Energy intake was decreased in many of the classes during the 6-month period, especially for those in the control group. After adjustment for the baseline value, significant increases in energy intake and protein, calcium, magnesium and iron intakes at breakfast were observed ($P < 0{\cdot}05$)

Conclusions: Although energy intake was increased in the HCDE group compared to the control group, further study of the HCDE is warranted.

Keywords
Dietary education
Cluster randomized trial
Female adolescents
Dietary habits
FFQ