Abstract

Objective. To compare dietary intake of women supplemented with multiple micronutrients (MM) or iron only during pregnancy.

Materials and Methods. Design: Randomized, double-blind, controlled community-based trial. Setting: One semi-urban community in Central Mexico. Subjects: Pregnant women identified before week 13 of pregnancy, willing to provide informed consent. Interventions: Women were randomly assigned to receive daily supplementation with MM or iron only from recruitment until delivery. Supplements were delivered to the participants home and compliance observed daily. Dietary intake was assessed by repeat 24-hr recall. Data were analyzed using non-parametric tests and multiple regression analysis to determine the impact of MM supplementation on dietary intake of energy and select micronutrients. Results. During the third trimester, women in the MM group consumed more energy and iron from dietary sources than women in the iron only group. After adjustment for differences between the groups at baseline, women in the MM group consumed 111.3 kcal/day more (p<0.05) energy. The difference in iron intake was not significant after adjusting for the increase in energy intake. Conclusions. Women consuming MM supplements during pregnancy increased energy intake from dietary sources without a concurrent increase in micronutrient density. Future studies should include measures of appetite and physical activity during pregnancy to determine the implications of additional energy intake for weight gain and retention.

Keywords

multiple micronutrients; iron; supplementation; randomized controlled trial; dietary intake; energy intake; Mexico