Abstract

Introduction: The nutritional status of micronutrients in lactating adolescent women is crucial to guarantee an adequate secretion of these in breast milk and, consequently, an adequate nutritional status of children. Hence, more attention should be given to micronutrient status of adolescent mother who breastfeed. This study aimed to evaluate the influence of multimicronutrients supplementation upon nutritional status of iron, copper, zinc and calcium of lactating adolescent mother from low socioeconomic status in Rio de Janeiro/Brazil. Methods: We conducted a randomized, placebo-controlled trial. During 60 days, 36 adolescents were allocated into two groups: supplemented group (SG) with 17 volunteers, receiving daily multimicronutrients supplement and the placebo group (PG) with 19 volunteers, receiving an inert compound. Plasma iron, copper, zinc and calcium and hemoglobin were determined at 7, 11 and 15 of the postpartum weeks (PPW). The effect of supplementation was analyzed by analysis of variance, comparing the differences between groups and within groups. Results: The average age of volunteers was 17.1 ± 0.8 for the supplemented group and 16.3 ± 1.4 for the placebo group. We observed an increase in the mean concentration of zinc (p < 0.05) and hemoglobin (p < 0.05) in the SG during the study (60 days), while the PG showed reduction (p < 0.05) in the mean concentration of copper between the 7th and 11th PPW. Conclusion: The results of this study show that supplementation with multimicronutrientes exerted positive effect on hemoglobin, copper and zinc.

Keywords

Supplementation, Micronutrients, Lactation, Adolescents.