Abstract

Objective: To evaluate nutritional status and dietary habits after implementation of a nutritional education program in professional handball players. Research methods and procedures: Longitudinal study of 14 handball players evaluated with 72-h recall, a questionnaire on food consumption and anthropometric measures during 4 months. The intervention consisted of a nutrition education program. Results: Energy intake was consistently below the recommended allowances. Macronutrient intakes as a percentage of total energy intake were below the recommended allowances for carbohydrates, and above recommended allowances for fats. Nutritional education was followed by a significant increase (p < 0.01) in total energy and macronutrient intakes, with no significant changes in macronutrient or micronutrient intakes after adjustment for energy intake. Discussion: The imbalance in nutrient intake in handball players suggests that detailed re-analysis is needed to determine specific recommendations for this population. Nutritional education with continuous follow-up to monitor athletes’ dietary habits may lead them to adopt appropriate nutritional habits to optimize dietary intakes. The lack of specific recommendations for micronutrient intakes in athletes leads to confusion regarding appropriate intakes; biochemical tests that yield normal values (albeit approaching cut-off values for deficiency) may disguise deficient status for some nutrients when strenuous exercise is involved. Conclusion: In-depth studies with nutrition education programs that include long-term follow-up are advisable to avoid deficiencies that can lead to irreversible damage in competitive athletes.

Keywords