Abstract

Background: The objective of this study, focused on parents and children to reduce sedentary behavior, consumption of soft drinks and highfat and salt containing snacks, and increase the consumption of fruits and vegetables, was to assess the effect of a six month intervention and an 18 month followup intervention on the body mass index, food consumption and physical activity of 2 nd and 3 rd grade elementary school children. Methods: This was a randomized cluster controlled trial. School children were selected from 2nd and 3rd (n = 532) grade. Measurements: BMI zscore for age and sex was calculated and classified according to the WHO (2006). Abdominal obesity was defined as WC > 90 th of NHANES III. Results: At six months of the study differences were observed in BMI, -0.82 (p = 0.0001). At 24 months, results such as an increase of zscore BMI and waist circumference, a decrease in abdominal obesity, eighth per cent remission and an incidence of 18% of overweight and obesity were observed. Additionally, an increase (p = 0.007) in vegetable intake and physical activity (p = 0.0001) was also reported, along with a decrease in sedentary activities and the consumption of snacks high in fat and salt. Conclusions: The results of this study indicate that with a comprehensive intervention there is a positive response to lifestyle changes and a reduction of abdominal obesity.

Keywords