

EFFECT OF A SHORT-TERM PHYSICAL ACTIVITY INTERVENTION ON BODY COMPOSITION, BIOMARKERS AND LIFESTYLE PATTERNS IN METABOLICALLY HEALTHY OBESE CHILDREN

ROMANCE GARCÍA, A RAMÓN
BENÍTEZ PORRES, JAVIER

The purpose of this study was to analyse the effect of a 4-months physical activity programme on visceral adipose tissue (VAT), biomarkers and lifestyle in metabolically healthy obese child population. **METHODS:** Data from 131 (n=70 boys, n=61 girls) healthy children (Age: 7.8 ± 1.4 years, BMI: 24.6 ± 3.4 kg/m²) enrolled in primary schools were used. The Actigraph GT3X monitor device was used to assess PA. Accelerometers were set to register 60-second epoch cycles, and were programmed to assess 7 days. We selected the cut points from Pulsford et al. to determine the time spent on different intensity levels of PA and sedentary time. Blood analysis was carried out to obtain biomarkers. Total and regional body composition were estimated using dual-energy x-ray absorptiometry (DXA). Children performed 5 days of aerobic PA per week (1h). A repeated-measures TStudent test was conducted to examine temporal changes (4 months). **RESULTS:** Significant changes for moderate and vigorous PA were found between both moments (Moderate PA min/d 15.3 ± 15.5 vs. 35.5 ± 14.8 , $p < 0.001$; Vigorous PA min/d 1.2 ± 3.1 vs. 9.1 ± 6.3 $p < 0.001$ respectively). There were no significant differences for the rest of biomarkers and body composition variables, VAT included. **CONCLUSION:** Our results suggest that there are signs of improvement in lifestyle patterns and some biomarkers. However, 4 months of PA intervention seem to be insufficient to obtain a significant change on body composition and VAT in metabolically healthy obese children.