
Effects of a Physical Activity Intervention Study in Obese/Overweight Children Adipose Tissue

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Background: The worldwide increase of obesity in children claim for urgent measures in several instances. One of the keys measures is to increase the children habitual physical activity (PA). The propose of this study is to analyze the effects of an PA intervention program in the children adipose tissue.

Methods: 24 obese/overweight children with 10.29 ± 2.00 years of age (6.92 to 13.89) of both gender participated in a intervention PA program during 9 months. They were evaluated at the beginning, after 4 months, and at the end of the program in weight, height a skinfolds (triceps, subscapular, suprailiace, and calf). The changes were analysed in a hierarchical linear model with HLM 5 having the sum of skinfols as dependent variable. Children were classified as obese / overweight according to the IOTF cut-off values (Cole et al., 2000).

Results: At baseline sum of skinfolds had an estimate mean value of 92.01 mm. The hierarchical linear model shows a significant and positive effect of the intervention program, that is, there was a decrease of 9.6 mm in the sum of skinfolds between which observations. Between the baseline and the second observation 30% changed from overweight to norm weight and 8.3% from obese to overweight. Between the second and the last observations only one child changed from obese to overweight.

Discussion: The results indicate a positive effect of the PA intervention program in the reduction of adipose tissue in obese/overweighth children.