

Impact of strength training exercise on secondary prevention of childhood obesity; an intervention within the school system Impacto del ejercicio de fuerza muscular en la prevención secundaria de la obesidad infantil; Intervención al interior del sistema

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Introduction: The physical exercise is an important therapeutic tool to prevent and treat obesity, as well as reducing metabolic alterations and the risk of non-communicable diseases. **Objective:** To evaluate the impact of a strength training exercise intervention within the school system, this includes muscular strength exercise, dietary education and psychological support in obese children. **Methods:** We worked with 120 obese schoolchildren, between 8 and 13 years, recruited from 3 schools. Group 1 (n = 60) participated in the intervention, which included physical exercise, dietary education, and psychological support, for 3 months. Group 2 (n = 60) received only the educational intervention and psychological support for the first 3 months, and then received the exercise intervention from months 3 to 6. Participants were evaluated for BMI, waist circumference, body fat, presence of metabolic syndrome and cardiovascular risk factors. **Results:** At 3 months, there were significant difference