

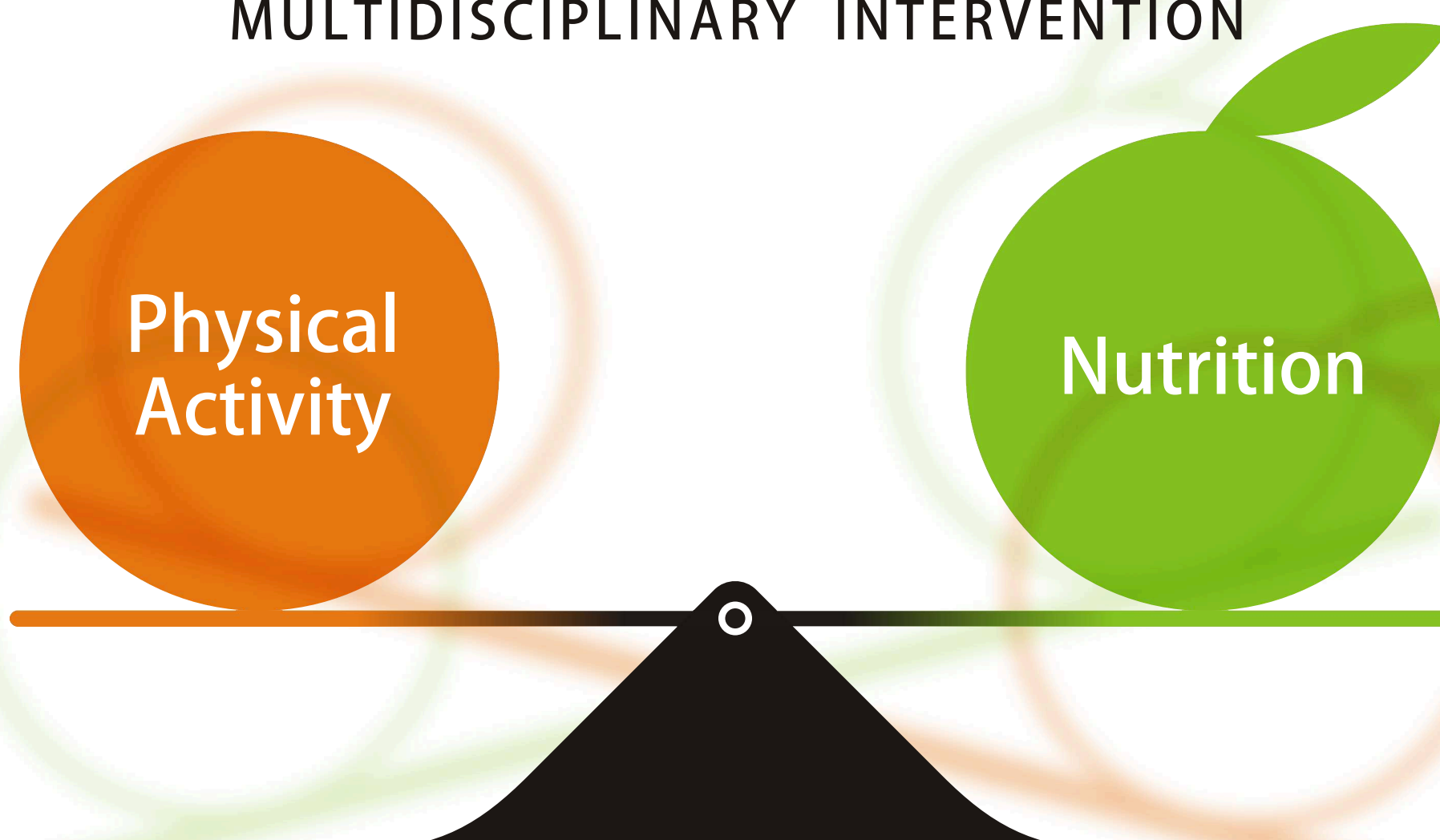


Cardiovascular Risk Factors in Children: Multidisciplinary Intervention Protocol Involving Physical Activity and Nutrition.

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Background and Objectives: Physical activity (PA) and nutrition represent modifiable behavioral risk factors, influencing physical fitness (PF) and body composition, largely related to metabolic risk factors leading to cardiovascular diseases and diabetes type II (Steele, Brage, Corder, Wareham, & Ekelund, 2008). According to this, we designed a randomized controlled trial with the main purpose to determine whether a school intervention program, during 6 months, based on increased energy deficits related behavior is associated with improvements in fitness, body composition and cardiovascular risk factors (CRF).

MULTIDISCIPLINARY INTERVENTION



Methods: Participants will be 100 children (7-10 years) previously classified as being outside the desirable values on fitness, body composition and CRF and will be randomly selected to one of four groups: Group 1, will have PA intervention (exercise in the classroom, a goal in the number of steps/day, to accomplish in school context, based on the age recommendations, and sessions about healthy lifestyles and daily PA possibilities) and a nutrition intervention, for children and their parents, in order to assess and develop an individualized monthly eating plan, using validated methods: Child Eating Behaviour Questionnaire (Viana & Sinde, 2008), Semi-Quantitative Food Frequency Questionnaire (Lopes, 2000), 24-hours recall (European Food Safety Authority, 2009) and nutritional quantification with Food Processor); Group 2, will cover only the PA intervention; Group 3, just the nutrition intervention; Control Group, will not have any intervention.

Expected Results: With this unusual multidisciplinary intervention, but increasingly necessary and suggested in childhood (World Health Organization, 2009), combining PA and nutrition trained experts and involving a parental/family component, it is expected to contribute in a statistically and clinically way for the control of several CRF.

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