

Effects Of Telephone Intervention On Maintaining Fat Loss And Physical Fitness Following Summer Intervention Program

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ABSTRACT

It is known that children gain most of extra weight and lose physical fitness during summer months due to physical inactivity and an increase in food intake. Summer intervention may reduce the prevalence of obesity in children; however reduction in body fat may be regained after finishing summer intervention.

PURPOSE: The purpose of this study was to determine the effects of 8 week summer lifestyle intervention and 10 month follow-up telephone intervention on changes in body composition and level of physical fitness in Hispanic Children. **METHODS:** 21 overweight or obese students (over 85 percentile in BMI score) aged 9-16 yrs completed 8 week summer intervention including 15 hour physical activity and 2 hour nutritional education per week and bi-weekly diet program. Students were later randomly assigned to follow-up telephone intervention for 10 months (TI) and control (CON). Physical characteristics, sit and reach (flexibility), grip strength (muscular strength), and 1mile walking (estimated VO_{2max}) were obtained before, a week after (POST) and 10 months following 8 week summer intervention (YEAR). **RESULTS:** We previously reported (*Med Sci Sports Exerc* 43(5): S624, 2011) that eight week summer lifestyle intervention significantly reduced % body fat and improved flexibility, muscular strength, and estimated VO_{2max} in 21 students. TI statistically maintained % body fat (POST:23.7±2.1%→YEAR:25.9±2.3, Mean±SE, P=.134), flexibility (31.9±1.4cm→30.4±1.8, P=0.43), and estimated VO_{2max} (44.1±1.66ml·kg⁻¹·min⁻¹→42.7±1.4, P=.215) during 10 month telephone intervention period. CON lost all improvement during 10 month follow-up period: %body fat (22.2±2.0%→26.9±1.8, P=.001), flexibility (32.7±1.7→27.3±1.2, P=.03), and estimated VO_{2max} (45.9±1.8→39.8±2.0, P=.005). Muscular strength was slightly increased in both TI and CON, but it was not significant. **CONCLUSIONS:** 8 week summer lifestyle intervention improved body composition and level of physical fitness in Hispanic children. Results indicate that telephone intervention is an effective tool to maintain the improvement in body composition and levels of fitness obtained from an intensive summer lifestyle intervention program.