Title

Physical activity habits associated with health variables in chilean male schoolchildren

Abstract

Introduction: Physical inactivity is a factor that contributes to increased cardiometabolic risk, such as overweight and obesity in schoolchildren. Aim: To associate physical activity habits with morphological variables (body mass index [BMI], waist circumference [WC], body fat, and fat-free mass), blood pressure, glycemia, handgrip strength (HGS), and countermovement jump (CMJ) in Chilean male schoolchildren. In addition, to compare physically active (PA) schoolchildren to physically inactive (PI) schoolchildren on morphological variables, blood pressure, glycemia, HGS, and CMJ. Material and methods: A cross-sectional study analyzed 160 schoolchildren with a mean age of 7.12 4.5 years distributed into PA schoolchildren (n=75) and PI schoolchildren (n=85). A logistic regression was performed to identify the association between physical activity habits with factors of morphological variables (BMI, WC, body fat, and fat-free mass), blood pressure, glycemia, HGS, and CMJ. In addition, to compare the differences in physical activity habits (physically active vs. physically inactive), a student s t-Test was performed for independent samples. Results: Logistic regression showed that physical activity is protective factor against excess body fat of 46% (OR= 0.46; 95%CI= 0.22 to 0.95; p= 0.03), hyperglycemia of 25% (OR= 0.25; 95%CI= 0.12 to 0.51; p0.0001), high blood pressure of 31% (OR= 0.31; 95%CI= 0.15 to 0.67; p= 0.002), and HGS dominant hand of 40% (OR= 0.40; 95%CI= 0.19 to 0.83; p= 0.014). Conclusion: Physical activity protected against excess body fat, hyperglycemia, hypertension, and decreased HGS in Chilean male schoolchildren. PA schoolchildren exhibited lower body fat, reduced risk of hyperglycemia and hypertension, and improved HGS and CMJ compared to PI schoolchildren.

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