

Health-related physical fitness and weight status in 13- to 15-year-old Latino adolescents. A pooled analysis [Aptidão física relacionada à saúde e status do peso em adolescentes latinos de 13 a 15 anos de idade. Uma análise em conjunto]

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Objective: The aim of this study was to investigate the relation between health-related physical fitness and weight status in 13- to 15-year-old Latino adolescents. **Method:** The final sample consisted of 73,561 adolescents aged 13-15 years (35,175 girls) from Chile (n = 48,771) and Colombia (n = 24,790). Cardiorespiratory and musculoskeletal fitness were measured using 20-m shuttle run (relative peak oxygen uptake $\dot{V}O_{2peak}$) and standing broad jump test (lower body explosive strength), respectively. The International Obesity Task Force definition was used to define weight status (i.e., underweight, normal weight, overweight, and obese). **Results:** The present study found an inverted J-shape relationship between body mass index, cardiorespiratory fitness, and musculoskeletal fitness in both genders and all age groups ($p < 0.01$). Results also suggest that underweight adolescents, and not just overweight and obese adolescents, have lower odds of having a healthy cardiorespiratory fitness (based on new international criterion-referenced standards) profile when compared with their normal weight peers, except in girls aged 14 ($p = 0.268$) and 15 years ($p = 0.280$). **Conclusions:** The present results indicate low cardiorespiratory fitness and musculoskeletal fitness levels in underweight, overweight, and obese adolescents when compared with their normal weight peers. The findings appear to suggest that exercise programs should to decrease fat mass in overweight/obese adolescents and increase muscle mass in underweight adolescents. © 2018 Sociedade Brasileira de Pediatria

20-m shuttle run

Aerobic fitness

Body mass index

Muscular strength

Weight status

adolescent

adolescent health

Article

body mass

body weight

cardiorespiratory fitness

Chile

Colombia

controlled study

cross-sectional study

female

fitness

groups by age

health status

Hispanic

human

major clinical study

male

musculoskeletal system

obesity

oxygen consumption

standing

underweight