Body mass index and health related physical fitness in Saudi girls and adolescents aged 8-15 years

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Statement of Problem: Health Related Physical Fitness (HRPF) is considered to be an indirect marker of a person’s health and wellbeing, reflecting the interplay and integration of many persons’ systems and body functions.

Purpose: To investigate the relationship between Body Mass Index (BMI) and HRPF in a national cross-sectional sample of Saudi girls and adolescents.

Methods: Weight, height and four components of HRPF (body fat composition, strength and endurance, flexibility and cardio-respiratory fitness) were measured in three age groups [(8-10), (11-12) and (13-15) years]. Pearson correlation coefficient and regressions analysis using a non-linear quadratic model were used to evaluate the relationship between BMI and HRPF in three age groups.

Results: The results revealed variable relationships among tests. Lower scores in body fat composition and cardio-respiratory fitness were associated with higher body mass indexes in each age group. Also lower scores in muscle strength and endurance were recorded in girls aged from 11 to 15 years. Relationships between BMI and flexibility differed among age groups.

Conclusion: BMI significantly and differentially influenced individual HRPF, but effects varied with age. Higher body mass indexes were generally associated with lower HRPF. The level of HRPF determined by this study may serve as an indicator of potential health risks that overweight and obese children girls and adolescents faced.

Biography

Zahra Al Asiri has completed his MSc from King Saud University and he has been working for more than 13 years as a Senior Physical Therapist and Supervisor at Prince Sultan Military Medical City and KAAUH. He has published paper about body mass index and health related physical fitness in Saudi girls and adolescents aged 8-15 years and currently working on 2 papers about cerebral palsy.

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