

PHYSICAL FITNESS LEVELS OF BULGARIAN PRIMARY SCHOOL CHILDREN IN RELATIONSHIP TO OVERWEIGHT AND OBESITY

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Introduction: Physical fitness has shown to be a major factor, which can predict the health status in the later phases of children's life. The aim of this cross-sectional study was to provide estimates for overweight and obesity in a sample of primary school children from Bulgaria and to determine possible relation with health-related fitness parameters.

Methodology: This study consisted of 118 primary school children (64 girls and 54 boys from Sofia, Bulgaria) between the ages of 7 and 11. The participants completed the extended version of the Alpha-Fit health-related physical fitness test battery, which includes measurements (height, weight, waist circumference, triceps and subscapular skinfolds), as well as variety of different tests (handgrip strength, standing long jump, 4x10 m shuttle run test, and 20 m multistage fitness test).

Results: The mean percentile scores of height, weight and BMI in all participants were within the WHO norms. However, the individual BMI assessment showed that 18% of all primary school children were 'overweight' (BMI > 85th percentile), 12% were 'obese' (BMI > 97th percentile), and 11% were assessed as 'thinness' (BMI < 15th percentile).

Discussion: Although, the mean percentile scores of BMI and %BF for the whole sample provided an accurate assessment of body composition, some individuals were assessed as 'overweight' according to their BMI, but their percentile scores for %BF was within the norms.

Conclusions: The results of this study showed that lower levels of physical fitness are associated with overweight and obesity in primary school children.