Comparison between the growth of Brazilian children and adolescents and the reference growth charts: data from a Brazilian Project

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ABSTRACT

Objective: To compare the growth of Brazilian children and adolescents with reference growth charts. Methods: School-based cross-sectional study involving 41,654 students (23,328 boys and 18,326 girls) aged 7 to 17 years. Physical growth variables (body weight, height) and body mass index (BMI) were measured. Height, 50th percentile, and BMI, 85th percentile, were compared with the World Health Organization (WHO) reference values, and weight, 50th percentile, was compared with the Centers for Disease Control and Prevention (CDC) growth charts. Results: Mean height and body weight of Brazilian schoolchildren were generally higher than the WHO and CDC reference values for both genders at most ages. BMI values of Brazilian schoolchildren were significantly lower than the WHO obesity values at all ages. Conclusion: The growth in body weight, height, and BMI of children and adolescents in the urban area of Brazil is increasingly similar to those reported in developed countries. Further prospective studies should be conducted in Brazil comparing their results with the international growth charts to enable more accurate inferences.

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