**Body Mass Index, Body Fat Percentage, and Thoracic Hyperkyphosis: Descriptive Analysis in Children and Adolescents**

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**Introduction.** The thoracic hyperkyphosis can cause damage to the spine and possibly evolve chronically.

**Objective.** To analyse the association between thoracic kyphosis, Body Mass Index (BMI) and Body Fat percentage (BF %) in children and adolescents.

**Methods.** The study include 149 children and youth, 84 females and 65 males, aged 10 to 18 years of Manaus-AM. It were performed Slaughter's equation, Body Mass Index (BMI) and photogrammetry method DIPA version 3.1. (Digital Image-based Postural Assessment). The Data analysed used SPSS 24.0. Chi-Square and Mann Whitney test (α= 0, 5) were used.

**Results.** It observed that the mean age of the students was 13 (±19). The BMI presented a mean of 19, 47 (±3, 8) and BF% was 22, 4(±8, 74), both in healthy zone. Of the 149 students analyzed, 32% presented hyperkyphosis. The Students aged 11 years had the highest occurrence of hyperciphosis (44%). 22% of subjects with thoracic hyperkyphosis in healthy zone of BMI and 25% in healthy zone BF %. Conclusions. Healthy students had a hight incidence of thoracic hyperkyphosis. The sample did not suggest a relationship between BMI and BF % in the occurrence of thoracic hyperkyphosis in male and female population.

*Palavras-chave:* Thoracic hiperkyphosis; Body mass index; Body fat percentage; Children; Youth.

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**‘Planning Health in School’ Programme: Rational Analysis of Costs and Benefits**

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Few school-based intervention programmes for preventing childhood obesity with a controlled design have included an economic evaluation. This study analyses the costs and benefits of the ‘Planning Health in School’ programme (PHS-pro) for promoting healthy eating in Portuguese grade 6 children. Height, weight, waist circumference (WC), BMI, and behaviour changes in 219 intervention children (IC) were compared with 230 control children (CC). A standard economic evaluation determined the cost-benefits of the PHS-pro. The intervention costs were estimated and compared to the direct costs of treating obese adults in Portugal (Ribeiro V. 2010).

After PHS-pro, the IC increased in height significantly (p<0.001), the WC had reduced significantly (p=0.015) compared with CC. Furthermore, the IC consumed significantly fewer soft drinks (p=0.043), ate more fruit and vegetables daily compared with CC. PHS-pro intervention cost was estimated as €36.14/child. This is much lower than the direct costs for treating an obese adult in Portugal, which was calculated as €3849.15/year. A costing projection for implementing the PHS-pro over a full school year to a larger young population was estimated as €18.18/child.

The PHS-pro can be a beneficial investment to prevent overweight in childhood and adolescence, which are developmental stages that determine adulthood chronic diseases.

*Palavras-chave:* Cost-benefit; Economic evaluation; Costing projection; School-based intervention; Childhood obesity.

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