ANTHROPOMETRIC MEASUREMENTS OF SCHOOL CHILDREN AND ADOLESCENTS IN ENUGU URBAN

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ABSTRACT

Comparison of physical anthropometric measurement of a child over a period of time with those of other healthy children helps to determine whether he is growing as expected. The aims of this study were to establish anthropometric standard for school children, to compare the physical characteristics of males and females and to determine the relationship and correlations of the different anthropometric parameters. 807 males and 691 females aged 5 to 18 years were enrolled for this study.

The parameters studied were height (Ht), weight (Wt), biacromial diameter (BAD), bi-iliac diameter (BID), foot length (FL), foot breadth (FB), mid arm circumference (MAC), arm length (AL), head circumference (HC), neck circumference (NC) and waist circumference (WC). Mean values of all the parameters studied were established for each age. Significant sex differences in some of the parameters were established especially from age 13 (p<0.05).

The sex dimorphism is higher for males in Ht, Wt, FL, FB, BAD, and HC. The females, in contrast have larger MAC, WC and BID.

Strong positive correlations exist between the different anthropometric parameters (p<0.001). The FL of an adolescent in Enugu can serve as a good predictor of both the MAC and BID in the same individual.

Regression formulae for most of the parameters were derived.