

Nutritional status and blood pressure in adolescent students [Estado nutricional y presión arterial de adolescentes escolares]

Cossio-Bolanós M.

Cossio-Bolanós W.

Menacho A.A.

Campos R.G.

Silva Y.M.D.

Abella C.P.

De Arruda M.

Introduction. Obesity is the main risk factor for arterial hypertension and is associated with a higher morbidity, both in the short and long term. Objectives. To compare anthropometric and blood pressure indicators in terms of the nutritional status, to verify the relationship between nutritional status and blood pressure, and to establish the prevalence of hypertension in terms of the nutritional status in both male and female adolescents. Methods. Cross-sectional, descriptive study on 499 adolescent students aged 11-15 years old. Weight, height, body mass index (BMI), fat percentage, and blood pressure were measured and assessed. The BMI was used to classify participants (normal weight, overweight, obese), and the prevalence of hypertension was determined using values above the 95th percentile. Results. As per the BMI classification, 81% of girls and 76.5% of boys had normal weight, 15.7% of girls and 15.5% of boys were overweight, and 3.3% of girls and 8% of boys were obese. As per the blood pressure classification, hypertension was observed in 6.4% of boys and in 9% of girls. A relationship was found between nutritional status and blood pressure (boys: $\chi^2 = 53.48$; girls: $\chi^2 = 85.21$). Conclusion. Overweight and obese adolescents had more body fat and a higher blood pressure than normal weight adolescents. Also, a relationship was determined between nutritional status and blood pressure in both male and female students. The higher the BMI, the higher the prevalence of hypertension.

Adolescents

Blood pressure

Body mass index

Obesity

Overweight

adolescent

anthropometric parameters

article

blood pressure measurement

body fat

body height

body mass

body weight

child

child nutrition

controlled study

cross-sectional study

descriptive research

diastolic blood pressure

disease association

female

human

hypertension

lipid composition

major clinical study

male

nutritional status

obesity

sex ratio

student

systolic blood pressure

blood pressure

comparative study

hypertension

morphometrics

prevalence

Adolescent

Blood Pressure

Body Weights and Measures

Child

Cross-Sectional Studies

Female

Humans

Hypertension

Male

Nutritional Status

Prevalence

Students