

# **Correlation between physical activity and obesity in 12-16 Old Tirana School Children**

**Aida Shehu<sup>1</sup>,Ergeta Ktona<sup>2</sup>,Esmeralda Meta<sup>1</sup>**  
**Universiteti i Sporteve<sup>1</sup>,Fakulteti i Shkencave Teknike Mjekesore,<sup>2</sup>**

## **Abstract**

The main purpose of this study was to determine the relationship between physical activity (PA) levels and adiposity. Physical activity and fitness is a reason that suggest for increase in childhood obesity in the last 15 years, with significant correlation between body composition and physical activity and physical fitness yet to be determined. The aim of the study is to investigate the prevalence of overweight and obesity among Tirana school children and determine the relationship between indicators of physical activity and body fatness in Tirana school children aged 12-16 years. The group of children was compound of (377 boys and 184 girls—aged 12-16 years). Anthropometric and physical fitness values, including body mass index (BMI), waist-circumference, body-fat, and aerobic capacity, and heart rate, were measured in all the children. Significant differences were found between male and female children regarding the prevalence of obesity (6.8% vs 8.2%, p<0.05, boys and girls respectively). Boys had significantly lower body mass, BMI, waist-circumference, and body-fat compared to their female counterparts (p<0.05). The highest level of weight, BMI, body-fat, and waist-circumference observed in a 16-year old girl (96.3 kg, 40.5 kg/m<sup>2</sup>, 54.5%, 91.4 cm respectively) implies the existence of extreme obesity in Tirana school children. The negative relationship between body-fat and maximal oxygen (VO<sub>2</sub>max) uptake was moderately. The study has shown a high prevalence of adiposity among Tirana school children, with a negative relationship between aerobic fitness and body fatness. Data of the study emphasize the necessity to identify children with weight problems and to develop early interventions to improve physical activity in children and prevent the increase of childhood obesity.

*Key words:* *Body-fat, Fitness, Girls, Obesity, BMI.*

## **Korrelacioni ndremjet Fitnesit dhe Obezitetit ne femijet e moshes 12-16 ne shkollat e Tiranes.**

**Aida Shehu<sup>1</sup>,Ergeta Ktona<sup>2</sup>,Esmeralda Meta<sup>1</sup>**  
**Universiteti i Sporteve<sup>1</sup>,Fakulteti i Shkencave Teknike Mjekesore,<sup>2</sup>**

## **Abstrakt**

Qellimi i ketij studimi eshte te percaktoje lidhjen ndermjet nivelit te aktivitetit fizik dhe obezitetit, lidhje kjo e cila sugeron per nje rritje te obezitetit tek femijet ne 15 vitet e fundit , me nje korrelacion te qarte ndermjet permbajtjes trupore , aktivitetit fizik dhe fitnesit ne menyre te vecante, lidhje e cila duhet studiuar. Studimi synon te studioje prevalence e mbipeshes dhe obezitetit ndermjet femijeve te shkollave dhe te percaktoje lidhjen ndermjet indikatoreve te aktivitetit fizik dhe permbajtjes yndyrore te trupit ne ne femijet e moshes shkollore 12-16 vjec. Grupi i femijeve te studiuar ishte (377 djem dhe 184 vajza). Vlerat antropometrike dhe ato te aktivitetit fizik , perfshire indeksin e mases trupore (BMI), perimetri i belit , yndyrnat trupore dhe aktivitetin fizik si dhe ritmin e zemres. Diferenca domethenese u gjeten ndermjet femrave dhe meshkujve ne lidhje me prevalencen e obezitetit e cila eshte respektivisht 6.8% kundrejt 8.2% , p >0.05 vajza kundrejt djem. Djemte kane nje ulje domethenese te mases trupore, BMI, te perimetrit te belit, dhe nivel te mases dhjamore krahasuar me vajzat e te njejtes moshe (p<0.05). Niveli i larte i vlerave te peshes trupore , BMI, yndyrnat trupore dhe perimetri i belit i vezhguar ne vajzat 16 vjecare (96.3 kg, 40.5 kg/m<sup>2</sup>, 54.5%, 91.4 cm respektivisht tregon per ekzistencen e obezitetit ekstrem tek femijet ne shkollat e Tiranes. Lidhja negative ndermjet mases yndyrore dhe volumit maksimal te oksigjenit ishte relativisht e larte. Studimi ka treguar nje prevalence te larte te adipozitetit ndermjet adoleshenteve ne shkollat e Tiranes, ne nje lidhje te forte me perpjeksim te zhdrojte nadermjet fitnesit dhe adipozitetit.

Te dhenat e studimit arrijne ne konkluzionin se duhen identifikuar sa me shpejt pesha trupore me vlera te larta tek femijet dhe ne kete menyre te nederhyet sa me shpejt me aktivitetin fizik dhe te prevenoje ne kete menyre obezitetin .

*Fjalet Kyc: Masa Yndyrore, Fitnes, Vajza, Obeziteti, BMI.*