AN OFFICIAL JOURNAL OF THE INTERNATIONAL ASSOCIATION FOR THE STUDY OF OBESITY
EDITED BY ARNE ASTRUP, COPENHAGEN. VOLUME 9, SUPPLEMENT 2, JUNE 2008

The 18th Annual Meeting of the European Childhood Obesity Group (ECOG) Abstract Book 5–7 June 2008 Porto, Portugal

obesityreviews

FUNDAÇÃO CALOUSTE GULBENKIAN

iaso

WILEY-BLACKWELL

Behaviour and Physical activity

P31

Overweight/obesity in children (6 to 14 years) from Bragança. Relationship with physical activity

Vasques C[1], Lopes V[1], Correia T[1] and Mota P[2]
[1]*Instituto Politécnico de Bragança, Portugal;* [2]*Universidade de Trás-os-Montes e Alto Douro, Portugal*

Introduction: The purpose was to study the prevalence of overweight/obesity and examine the relationship between physical activity and obesity.
Methods: Weight and height were measured in 1493 children (6 to 14 years old), of both gender. Overweight/obesity was calculated according to IOTF cut-off values for BMI. Means of transportation to school and the time spent watching TV were assessed. The odds-ratio between these variables and obesity were calculated.
Results: The prevalence of overweight/obesity was 30.4%. Only 11.6% of girls and 12.9% of boys did not go by car to school. On week days girls spend on average 3.10 ± 2.17 hour and boys 3.75 ± 2.38 hour watching TV. On weekend days girls spend on average 3.55 ± 2.20 hour, and boys 4.45 ± 2.52 hour. The risk for obesity for children who go to school by car is higher (1.073 and 3.055, respectively for girls and boys) than for those that goes on foot or by bike. Boys who spend five or more hours watching TV face the risk of obesity of 1.933 higher than those who spend less than 5 hour, for girls there was no associated risk (OR = 0.270) higher. During the weekend this risk, for boys who spend >6 hour watching TV, is 1.842 higher than for those who spend less than 6 hour, for girls there was no associated risk (OR = 0.395).
Conclusion: The prevalence of overweight/obesity is high. Children who go to school by car and spend more than 5 and 6 hours watching TV, respectively in the week days and weekend have a higher risk for obesity.
Keywords: obesity; overweight; physical activity.

P32

Relationship between cardiorespiratory fitness and cardiovascular diseases risk factors in Portuguese youth

Martins C[1], Gaya AR[1], Silva F[2] and Mota J[1]
[1]*Research Center in Physical Activity and Leisure Time, Faculty of Sports – Porto University;* [2]*Catholic University of Brasilia*

Introduction: Cardiorespiratory fitness (CRF) is being considered one of the most important health markers and predictor of morbidity and mortality for cardiovascular diseases (CVD). The aim of the present study was to compare the frequency of CVD risk factors in fit and unfit subjects and to analyze the relationship between CRF and CVD risk factors in this sample.
Methods: A total of 413 subjects were assessed in Porto and Braga districts. CRF was evaluated by Shuttle-run Test. CVD risk factors (blood pressure, TC/HDL and LDL cholesterol, glucose, triglycerides, body mass index -BMI, sum of skinfolds and waist circumference - WC) were evaluated according to international protocols. An age - and sex – specific score was computed for each of the variables and a metabolic risk score with all variables, except obesity indicators, was computed as the mean of the standardized outcomes scores to analyze its clustering.
Results: Unfit boys have statistically significant higher values of WC ($P = 0.011$), sum of skinfold ($P = 0.001$) and triglycerides ($P = 0.041$) than fit boys. In girls, only the sum of skinfolds ($P = 0.045$) presented higher values for unfit subjects when comparing to those ones. CRF was inversely associated with WC (β=−3.201 $P = 0.002$ / β=−0.240 $P = 0.001$), BMI (β=−0.185 $P = 0.020$ / β=−0.152 $P = 0.038$) and sum of skinfold (β=−0.403 $P = 0.000$ / β=−3.616 $P = 0.000$) in boys and girls respectively, and triglycerides (β=−2.054 $P = 0.042$) only in boys.
Conclusion: Data showed that unfit subjects tend to present higher values of risk factors than fit ones. CRF presented relationship with CVD risk factors in both genders.

P33

Prevalence of overweight, obesity and health-related physical fitness. A study in Portuguese children of both gender aged 6 to 10 years

Pereira S, Trigueiro M, Roriz M, Santos A, Sousa M, Seabra A and Maia J
Faculty of Sports Science and Physical Education, University of Porto, Portugal

Aim: The main objectives of this study were: 1) To estimate the prevalence of overweight and obesity, and 2) their effects in health-related physical fitness of Portuguese children aged 6 to 10 years.
Methods: A cross-sectional study was carried out in the city of Amarante, northern Portugal, in 2006. A sample of 2801 children of both gender (1341 females and 1469 males) belonging to 1st cycle of basic schooling of different regions of Portugal was used. The prevalence of overweight and obesity was calculated using body mass index (BMI), and the cut-off points suggested by Cole et al. (2000). Health-related physical fitness was evaluated with the *Prudential Fitnessgram* (curl-up, push-up, trunk-lift and one-mile walk). Statistical procedures included analysis of variance models and multiple regression. All analyses were conducted in SPSS 15.0.
Results: 1) Overall, 16.2% of children were overweight (females = 17.4%; males = 15.1%) and 5.6% were obese (females = 5.9%; males = 5.3%). 2) In both genders, the means values of BMI increased significantly with aging ($P < 0.001$). No sex main effects ($P = 0.956$) and no interaction between age and sex ($P = 0.525$) were found. 3) In all physical fitness tests no sex main effects was found (curl-up, $P = 0.164$; push-up, $P = 0.638$; trunk-lift, $P = 0.752$; one-mile walk, $P = 0.587$). 4) With the exception of push-up test, the physical fitness levels increased with aging ($P < 0.001$). 5) In push-up test a significant interaction between age and gender ($P = 0.005$) points out different gender patterns across age: push-up' levels increased with aging in males but in females tend to stabilize after 7 years. 6) Significant differences in all physical fitness tests were found between normal weight, overweight and obese children. Overweight and obese children showed significantly lower physical fitness levels from those showed by normal weight ($P < 0.001$).
Conclusions: These results suggest that it is important to consider BMI differences in the physical fitness levels among Portuguese children.

obesityreviews

Volume 9 Supplement 2 2008

Abstracts of the 18th Annual Meeting of the European Childhood Obesity Group (ECOG)

5–7 June 2008

Porto, Portugal

WILEY-
BLACKWELL