

T5:P.018

Treatment of paediatric obesity: learn from the past to change the future**Chirita Emami A**^{1,2}, Duncescu C^{1,2}, Marazan M^{1,2} and Micle J^{1,2}¹*'Louis Turcanu' Emergency Hospital for Children, Timisoara, Romania;* ²*'Victor Babes' University of Medicine and Pharmacy, Timisoara, Romania***Aim:** Evaluate the efficiency of the current approach for paediatric obesity and propose solutions for the found problems, in a paediatric endocrine clinic, located in a tertiary regional hospital in Timisoara, Romania.**Material and method:** A total of 246 children admitted with primary or secondary diagnosis of overweight or obese, over a period of 30 months (January 2008–July 2010). Retrospective analysis of demographic, clinical, and, when available, laboratory data were abstracted from the medical records. Our intervention was based on Expert committee recommendations for treatment stage 1 – Prevention Plus and stage 2 – Structured Weight Management (Barlow, 2007).**Results:** A total of 80.3% of the children were obese and the rest overweight, underlining that weight problems are taken into consideration only when becoming severe. Only 25 children (10%) came to follow-up in the hospital, an unknown number referred further to outpatient pediatric care and general practitioners (where they are not admitted) and we where we cannot evaluate results. This does not reflect low adherence to treatment, but rather poor method of motivating children and parents to come to follow-up in the hospital and consequently inability to evaluate results.**Conclusions:** Overweight in children is not considered health threatening by the general population in Romania. Although we are treating obesity following the latest international standards we have poor methods of evaluation. In order to improve this, we will make a special outpatient care program for this pathology, initiate a website (with forum) to inform, support and contact patients.**Conflict of Interest:** None disclosed.**Funding:** No funding.

T5:P.019

Withdrawn

T5:P.020

Physical activity levels and body composition: significant predictors of cardiorespiratory fitness in 10–14 year old schoolchildren (happy study)**Denton SJ**, Kerr CJ, Savory LA, Bailey DP and Kozub SA
*University of Bedfordshire, Bedford, United Kingdom***Introduction:** The UK government (2004) recommends that children participate in a minimum of 60 minutes of moderate to vigorous physical activity everyday to obtain both physiological and psychological health benefits. However, limited research has examined the importance of physical activity (PA) intensity and body composition measures in the prediction of cardiorespiratory fitness (CRF). This study aims to identify the PA intensity and body composition variables that significantly predict children's CRF.**Methods:** A sample of 100 school children (boys $n = 36$; girls $n = 64$) completed baseline measurements, including: (i) A body composition / anthropometric assessment [% body fat (% BF), waist circumference (WC), body mass index (BMI)]; (ii) A maximal fitness test and (iii) 7-day minute-by-minute PA monitoring using RT3® triaxial accelerometers to determine time spent in moderate physical activity (MPA) and vigorous physical activity (VPA). Two multiple regressions were employed to explore the relationships of PA (weekday and weekend) and body composition variables with CRF.**Results:** For both multiple regression analyses, % BF, WC and VPA significantly predicted CRF ($R^2 = 0.57$ (3, 99), $P < 0.05$) ($R^2 = 0.55$ (3, 99), $P < 0.05$). BMI and MPA did not significantly predict CRF.**Conclusion:** This study found an inverse relationship between % BF and CRF. VPA, but not MPA, significantly predicted CRF. Future PA interventions targeting reductions in % BF should consider the beneficial effects of vigorous intensity PA on overall CRF.1**Conflict of Interest:** None disclosed.**Funding:** Research relating to this abstract was funded by the Bedford Charity (The Harpur Trust).

T5:P.021

Adiposity indicators and cardiovascular risk factors in Azorean adolescents**Moreira C**¹, Santos R¹, Vale S¹, Santos P^{1,2}, Marques A¹, Abreu S¹, Soares-Miranda L¹ and Mota J¹¹*Faculty of Sport, Research Centre in Physical Activity, Health and Leisure, University of Porto, Porto, Portugal;* ²*Department of Physiotherapy School of Health Technology of Porto, IPP, Porto, Portugal***Introduction:** This study was conducted to evaluate the association of adiposity indicators (body mass index, waist circumference and waist-to-height ratio) with cardiovascular risk factors in lean and obese Azorean adolescents.**Methods:** A cross-sectional school-based study was conducted on 517 adolescents (297 girls) aged 15–18, from the Azorean Islands, Portugal. We measured height, weight, waist circumference, total cholesterol (TC), HDL-cholesterol, TC/HDL-C ratio triglycerides (TG), blood pressure (BP), fasting glucose and insulin. Insulin resistance was determined through HOMA-IR. The Body Mass Index (BMI) was calculated from the ratio of body weight (kg)/body height (m²). Cole's (2000) cut-off categorized adolescents as non-overweight, overweight and obese. Waist circumference and height were used to calculate WHtR.**Results:** 22.8% of adolescents were overweight and 6.8% were obese. Obese adolescents had higher values of TC, TC/HDL-C, TG, HOMA-IR, systolic and diastolic BP ($P < 0.05$) than non-overweight adolescents, whereas non-overweight had higher value of HDL-C ($P < 0.05$). Significant associations between the adiposity indicators and the cardiovascular risk factors were found in obese adolescents that were not present in leaner adolescents ($P < 0.05$).**Conclusion:** The adiposity indicators are correlated with several cardiovascular risk factors in obese adolescents than non-overweight adolescents. These adiposity indicators are useful in population health as it identifies adolescents at greater risk of developing cardiovascular diseases.**Reference:** 1. Cole T, Bellizzi, M., Flegal, K., Dietz, W, Establishing a standard definition for child overweight and obesity worldwide: International survey, *BMJ*, 2000; 320: 1240–1243.**Author Disclosure Statement:** No competing financial interests exist.**Funding:** Supported by FCT-MCTES Grants: BD/44422/2008, BPD/65180/2009, BSAB/1025/2010 and by Azorean Government.

T5:P.022

Neck circumference as a novel parameter to determine metabolic risk factors in obese children**Kurtoglu S**¹, **Hatipoglu N**², Kondolot M³ and Mazicioglu MM⁴¹*Department of Pediatric Endocrinology, Erciyes University Faculty of Medicine, Kayseri, Turkey;* ²*Department of Pediatric Endocrinology, Kayseri Maternity and Child Hospital, Kayseri, Turkey,* ³*Department of Social Pediatrics, Erciyes University Faculty of Medicine, Kayseri, Turkey;* ⁴*Department of Family Medicine, Erciyes University Faculty of Medicine, Kayseri, Turkey***Introduction:** To establish the association between neck circumference (NC) and cardiometabolic risk factors and to determine the uti-