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**PHYSICAL AND SPORT ACTIVITIES IN SCHOOL AND COMMUNITY CONTEXT: WHAT IMPACT ON HEALTH INDICATORS?**Jorge Manuel Ribeiro<sup>1,a</sup>, Luís Paulo Rodrigues<sup>1,b</sup>, Luísa Santos<sup>1,c</sup>, Graça S. Carvalho<sup>1,d</sup><sup>1</sup>*Centro de Investigação em Estudos da Criança. Instituto de Educação. Universidade do Minho. Braga, Portugal*<sup>1</sup>*Escola Superior de Saúde. Instituto Politécnico de Viana do Castelo. Viana do Castelo, Portugal*

**Introduction:** Health promotion interventions usually occur at school, where young people stay longer. However, physical/sport activity can be organized also out of school, in the community. Thus, it is important to look up to the impact of physical activities/sports at school or in the community, using different health indicators.

**Objective:** To assess the relationship between physical/sport activity (in and out of school), body composition and physical fitness in adolescents.

**Methods:** A sample of 98 adolescents (mean 14.5 years) from a secondary school was analyzed. Physical activity was assessed using pedometers for an all week, and sport activity through a questionnaire. Teenagers were tested in the Fitnessgram battery to assess healthy fitness zone (HFZ) in body composition and physical fitness.

**Results:** Adolescents within the percentage of fat mass HFZ were significantly more active during school hours. Moreover, in most physical fitness tests, adolescents classified within the HFZ are in average more active in and out of school hours. A significant relationship between involvement in sports activity in the community and the HFZ classification in aerobic fitness was also found.

**Conclusions:** Physical and sport activities developed at school and in the community seem to have a significant impact on body composition and physical fitness of adolescents.

**Descriptors:** pedometers; aerobic fitness; body composition.

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**PREVALENCE AND RISK FACTORS FOR OVERWEIGHT/OBESITY IN LEIRIA'S 7<sup>TH</sup> GRADERS (2009-2013)**João R. Cruz<sup>1,a</sup>, Nuno Amaro<sup>1</sup>, Rui Matos<sup>1,II</sup>, Nuno Santos<sup>1</sup>, Luís Coelho<sup>1,II</sup><sup>1</sup>*Research Centre for Human Movement Sciences. Instituto Politécnico de Leiria. Portugal*<sup>II</sup>*Investigation Centre in Life Quality. Instituto Politécnico de Leiria. Instituto Politécnico de Santarém. Portugal*

**Introduction:** Overweight/obesity (Ow/Ob) are well documented risk factors for cardiovascular disease (CVDRF), and its prevalence has been increasing even in children and adolescents, over the past decades.

**Objective:** This study monitors the change over a 5 year span (2009-2013) in Ow/Ob and CVDRF in a Leiria's middle school.

**Methods:** This was a cross-sectional assessment that comprised 654 7th grade students. Body Mass Index (BMI), fat mass (FM) and waist circumference (WC) were monitored.

**Results:** Throughout the 5 years, 25.7% of individuals were Ow/Ob (BMI). According to FM, there were 26.5% of Ow/Ob subjects, with a statistical difference among the 5 years ( $p=0.000$ ) – 42.9%, 22.2%, 19.8%, 13.9% and, 30.3% in 2009/10/11/12/13, respectively. Surprisingly, there were 32.5% of Underfat individuals (47.9% in 2009). BMI misclassified more than 50% of BMI's Normal Weight individuals (40.0% were Underfat and 17.1% were Ow/Ob); 46.2% of BMI Ow/Ob individuals were classified as Healthy (35.4%) and Underfat (10.8%) when fatness was assessed via bioimpedance, whereas only 53.8% kept BMI's Ow/Ob classification. 18.4% of the individuals are at risk/high risk for developing CVD according to WHO's classification for WC. However, using the reference data for Portuguese young population, 27.5% of individuals were below the 25th percentile, 37.2% at the 50th-75th percentile and 35.5% over the 85th.

**Conclusions:** No changes have been reported in the prevalence of Ow/Ob, FM and WC in the past 5 years in this school. BMI fails to monitor fat mass. More than one third of the individuals are at risk/high risk of developing CVD.

**Descriptors:** youth; obesity; waist circumference; waist circumference; cardiovascular disease.

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