Abstract

Introduction: The aim of this study was to evaluate the level of PA and EE in Serbian urban adolescents, using an objective measure. In particular, we explored gender and weight status related differences in PA level and EE among Serbian adolescents. In addition, their PA and EE obtained during schooldays and weekends were compared. Methods: From the representative sample of elementary schools in Belgrade, one school was selected by random sampling for the purpose of the objective PA assessment. The sample included 115 students (53 boys and 62 girls) of the average age 14.0 (0.6) years. EE and the duration of PA levels were assessed by the Sense Wear PRO 3 Armband device (Body Media Inc., Pittsburgh, PA, USA). IOTF cut-off points were used to define subjects as non-overweight, overweight or obese. Analysis of variance was applied to examine the impacts of gender and weight status on EE and PA duration. Results: Adolescents spent most of the time in sedentary regime 241.7 ± 62.8 min/day, on average and they were totally physically active for 196.0 ± 73.5 min/day. Boys accumulated more PA than girls and during schooldays, the PA of all adolescents was higher than during weekend days. OW girls spent less time in total PA, MPA, and VVPA. On the other hand, NW and OW boys differed only in VVPA. Consequently, OW girls had lower energy expenditure compared with their NW peers, but no such differences in boys were found. Discussion: The results of this study indicate that low PA activity might be a more important factor in propagation of overweight in girls than boys, at least in early adolescent period. PA in girls should be strongly encouraged, with a special focus on vigorous PA during weekends.

Keywords