The attitude towards health during adolescence has a powerful influence on both the health of the adolescent and the future health of adult. Much evidence exists regarding the risk of a sedentary lifestyle in the development of some illnesses. The purpose of this study was to investigate the relationships between the level of physical activity (PA) of the adolescents (13–17 years old) of Madrid and various bio-psycho-social variables.

Two hundred and sixty six boys and 288 girls between 13 and 17 years old were selected from 35 educative centers belonging to 16 of the 21 districts of Madrid. After obtaining a written consent of the parents the subjects completed a survey containing the Modifiable Activity Questionnaire for Adolescents (Aaron & Kriska, 1997: Medicine and Sciences in Sport and Exercise). The subjects were then submitted to an anthropometric measurement.

Several variables were associated with PA, namely: gender ($w^2$, $P=0.000$), PA of the father in both boys ($w^2$, $P=0.034$) and girls ($w^2$, $P=0.003$). In girls, PA of the mother ($w^2$, $P=0.007$) and peers ($w^2$, $P=0.022$), SES ($P=0.001$), scholastic performance ($w^2$, $P=0.000$) and body fat ($w^2$, $P=0.007$). In boys tobacco consumption ($w^2$, $P=0.07$). Worrying values (225 min/day+135 for boys and 174 min/ day+109 for girls) of screen time (ST) were observed in the majority of the sample. The boys, mainly of the lower SES, were found to have the most disturbing values. Following a logistic regression, the variables that had the greatest influence on the PA were as follows, in order of importance: gender, PA friends, PA of the father and overweight.

The finding that the gender and the PA of friends are the most important determinant of PA, is supported by literature, however the importance of the other variables is not in agreement with all the findings in the literature.

The following proposals for the future were made. Girls and adolescents with lower SES should receive high-priority attention concerning their health-related habits. Parents should be encouraged to practice PA. Nutritional education for children, adolescents and parents is necessary to avoid being overweight and to change sedentary habits.