Abstract: Purpose: There is evidence that physical activity declines during adolescence in Western countries. However, this pattern has not yet been shown in Iranian youth by longitudinal studies. The purpose of this longitudinal study was to detect changes in physical activity behavior, psychological factors and interpersonal influences associated with exercise behavior during the transition from secondary school to high school in Sanandaj, Iran.

Methods: The data were collected by following 1073 students conducted in 2006. The study population in 2009 included 844 high school students (51% male and 49% female) with mean age of 16.42 ± 1.73 years. The physical activity related cognition, interpersonal influences, and physical activity behavior using self-reporting questionnaires were collected. To assess the effects of time and sex on psychosocial factors ANOVAs and relative stability physical activity psychosocial correlates from wave 1 until the wave 2 Pearson product-moment correlations was used.

Results: The test of time effects indicated significant differences according to sex for more physical activity and psychological variables and interpersonal influences associated with exercise activities. The girls had less physical activity than boys at both time points. Moderate physical activity in the first time was 31.82 and 53.75 minute and at follow-up was 23.7 and 44.7 minutes for girls and boys respectively. Girls had lower self-efficacy and perceived more barriers and fewer perceived benefits for physical activity over time follow-up. There was more stability of family interpersonal influences for girls than boys.

Conclusion: The results of this study offer evidence for decreasing physical activity in boys and girls and sex differences in cognitive variables and interpersonal influences. This is important for understanding how to address the problem of physical inactivity among Iranian youth.

Keywords: Physical Activity, Adolescents, Health Promotion Model, longitudinal