Abstract: INTRODUCTION: Iranian Adolescent girls are at high risk for physical inactivity due to cultural barriers such as restrictions on public exercise. The aim of this study was evaluation of effectiveness of a school-based exercise program on body composition and physical fitness of girls and their mothers.

METHODS: In a semi-experimental study we included 70 subjects (35 high-school girl students as well as their mothers) in 2008. All the students, whose mothers volunteered to take part in the study, were in first to third grades of high school and randomly selected from five high schools in the city. The study has been conducted in Neda high schools in Sanandaj-Iran. Eligible subjects participated in an exercise program for 12 weeks, ninety minutes per session, two times per week. The subjects followed the same exercise programme, at the same time in the same place. Measurements included cardiovascular endurance, muscle strength, flexibility, height, weight, body-mass index (BMI), waist and hip circumference.

RESULTS: mean Age (standard deviation) of girls and mothers was 15.00(1.60) and 40.00(3.80) respectively. In girls, the intervention had significant effect on weight, BMI, waist and hip circumference (p<0.05). Physical fitness tests including muscle strength, flexibility and cardiovascular endurance were significantly different between the pre-test and post-test measurements (p<0.05). In mothers body weight, BMI, waist and hip circumference declined significantly (p<0.05). Flexibility test was not significantly affected over time, despite an increase in muscle strength and cardiovascular endurance (p<0.05). The highest correlations were found between the mother's participation index and the girl's participation index (r: 0.48, p< 0.001).

CONCLUSION: The exercise program was effective in improving Physical fitness.

Obesity, Physical activity, Physical fitness.

Presentation: Poster