

107 **THE RELATIONSHIP OF CARDIORESPIRATORY FITNESS WITH SOME OF THE ANTHROPOMETRY CHARACTERISTIC AND PHYSICAL ACTIVITY IN GIRLS AND BOYS 8–12 YEARS OLD**

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Background Physical activity (PA) participation is associated with health benefits and/or health risks. Low cardiorespiratory fitness (CVF) and fatness seem to be important health problems. Regarding some of the studies, it has been proven that CVF is related to daily PA and fatness.

Objective The purpose of this study was evaluating the relationship between CVF with some of the anthropometric characteristics and PA in children aged 8–12 years.

Design A cross-sectional study of 44 children aged (mean±SD) 9.73±1.38 years, height 134.5±11.77 cm and weight 32.04±8.66 kg from Noorabad city volunteered for this study. Before performance of any testing, the enrolled children's parents provided written informed consent and all children filled up an informed consent form. The current health status of the children was checked, CVF was measured by Bruce's treadmill test and the recording paper of daily PA for 2 days of a week (a holiday and a non-holiday) was filled by the children's parents. Body mass index (BMI) was calculated as weight/height squared (kg/m^2), and using Jackson's formula the body fat percentage (BF%) was calculated. Pearson bivariate correlation analysis was done. The analysis was performed using SPSS (version 15.0), and the level of significance was set at $p=0.5$.

Results A statistically significant relationship was found between CVF (VO_2max) and PA ($p=0.0005$), BMI (0.034) and BF% ($p=0.005$).

Suggestion Our cross-sectional results suggest that PA may improve children's CVF. In addition, we can estimate by VO_2max measuring BMI and BF%.