

# **The relationship between muscle strength and endurance with body composition and stress level in after puberty student girls**

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The purpose of this study was to evaluate the relationship between muscle strength and endurance with body composition and stress level in after puberty student girls. Statistical population of this study was including all female students of the first year of Rasht's region two public high schools (n=4770), that among them, 380 students five schools were ed as the study samples. Students upper and lower body strength, upper body and stomach muscle endurance, body mass index, fat percent, waist to hip ration and stress were measured. SPSS software version 21 was used for statistical analysis and P-value less than 0.05 was considered statistically significant. Results indicated that there were a positive and significant correlation between stress with lower body strength (p=0.03) and stomach muscle endurance (p=0.00). However, there were no statistically correlation between stress with body composition (p>0.05). In addition, there were a positive significance correlation between body mass index with upper body and lower body strength (p=0.00) and upper body endurance (p=0.00) and a negative significant correlation with stomach muscle endurance (p=0.01). Also, body fat had a positive significant correlation with upper and lower body strength and a negative significant correlation with upper body and stomach muscle endurance (p=0.00). In conclusion, the results showed that muscle strength and endurance could be associated with body composition and stress levels.

**Keywords :** stress, muscle strength, muscle endurance, body composition

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