TACSM Abstract

Differences in Maximal Oxygen Uptake Between Non-Athlete Schreiner Female Students and Division III College Tennis Women

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ABSTRACT

Rates of obesity and physical inactivity continue to rise, particularly among women. **PURPOSE**: To measure the difference between maximal oxygen consumption between female NCAA Division III college athletes and female non-NCAA Division III athletes. **METHODS**: Voluntary, female NCAA Division III tennis athletes (*N*=9, *M* age=20.1 years) and female non-athletes (*N*=9, age= *M* 20.4 years) were recruited by the researcher in Spring 2019. Participants self-reported height and weight to calculate Body Mass Index (*M*=23.88 kg/m², *SD*=5.46 kg/m²) and completed the Queen's College Step Test. Maximal oxygen consumption was determined using Katch and McCardle's Queen College Step Test recovery heart rate predicted formula. **RESULTS**: An independent samples T-test determined that there was not a statistically significant difference (*t*=.068, *df*=16, *p*=.947) between athletes (*M*=37.41 ml/kg/min, *SD*=3.91 ml/kg/min) and non-athletes (*M*=37.57 ml/kg/min, *SD*=6.17 ml/kg/min). **CONCLUSION**: Although there was no statistically significant difference for maximal oxygen consumption between the athletes and non-athletes, average scores for both groups were classified as "fair", per ACSM classifications for age and gender. Efforts to improve cardiorespiratory fitness should be considered for college athletes and non-athletes, particularly as rates of hypertension and cardiovascular disease have increased among American adults.