

## The Effect of Moderate Intensity Aerobic Exercise on Affect and Exercise Intention in Active and Inactive College Students

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### ABSTRACT

Physical activity has long been established as an essential behavior for vital physical and psychosocial health outcomes, but lack of physical activity is still a rampant problem worldwide. Numerous factors influence physical activity participation, including affect, a measure of well-being. Research has found that affect increases following an exercise session, though some recent studies have discovered affect can be lower when measured during exercise, suggesting low affect during exercise may contribute to physical inactivity. **PURPOSE:** To explore the differences in affect between male (M) and female (F), and active (ACT) and inactive (INACT) college students during moderate intensity exercise. **METHODS:** A total of 72 students ( $n = 41$  M,  $n = 31$  F;  $n = 38$  ACT,  $n = 34$  INACT) participated in this study. Participants cycled for 30 minutes at 65-75% of their age-predicted maximal heart rate and completed the previously validated positive and negative affect scale near the end of the exercise bout. Following the exercise session, participants completed measures to assess future exercise intention using a previously validated scale, as well as discomfort and difficulty of the exercise bout in order to control for possible apparatus (i.e., seat) discomfort. Mann-Whitney  $U$  tests were conducted to assess differences between genders (M/F) and activity level (ACT/INACT) on positive affect (PA), negative affect (NA), and exercise intention (EI). A Spearman rank order correlation was conducted to determine association between both PA and NA, and EI. **RESULTS:** Data are reported as median, mean  $\pm$  SD. No significant differences ( $p > 0.05$ ) were found between activity levels for PA (ACT=35, 32 $\pm$ 8, INACT=33, 33 $\pm$ 9), NA (ACT=13, 13 $\pm$ 3, INACT=13, 15 $\pm$ 5), or EI (ACT=7, 7 $\pm$ 1, INACT=6, 5 $\pm$ 1). Likewise, no significant differences ( $p > 0.05$ ) were found between genders for NA (M=14, 14 $\pm$ 4, F=11, 14 $\pm$ 5), or EI (M=6, 6 $\pm$ 1, F=7, 6 $\pm$ 1), but PA did differ significantly between genders (M=34, 34 $\pm$ 7, F=28, 29 $\pm$ 9,  $p = 0.03$ ). No significant relationship ( $p > 0.05$ ) was observed between either PA and EI ( $r_s = 0.098$ ), or NA and EI ( $r_s = -0.058$ ). **CONCLUSION:** No significant differences in affect between active and inactive individuals suggest that affect during exercise may not be a deterrent to physical activity as previously thought. Results showed that males experienced higher levels of positive affect during the exercise bout than females. This could mean males enjoyed the exercise more than females. Given these gender discrepancies, practitioners may need to consider using different training techniques or interventions for males and females.