Examining Gender Differences in the Relationship Between Active Travel and Fitness Outcomes

O'Neill, A., Bopp, M., Bopp, C., Shaffer, K., Papalia, Z. Pennsylvania State University, University Park, PA

Active travel (AT), transportation by walking and biking, has many health benefits and can provide the recommended daily physical activity for many college students. **PURPOSE:** To examine gender differences of the relationship between AT and fitness outcomes. **METHODS:** Participants were a volunteer sample of college students who completed an objective fitness assessment (VO2max, BMI, body fat percentage, blood glucose, and lipids) and self-reported their travel modes to campus and demographics. Basic statistics described the sample, Pearson correlations, and t-tests examined the relationship between active travel and fitness variables for males and females separately. **RESULTS:** Participants (n=382) were primarily male (52%), and Non-Hispanic White (76%). Males had a mean of VO2max of 37.7 ± 8.9 ml/kg/min, body fat of 16.0 ± 4.9%, and BMI of 25.6 ± 3.8 kg/m2. Females had a mean of VO2max 36.0 ± 7.3 ml/kg/min, body fat of 26.5 ± 6.4%, and BMI of 24.2 ± 4.1 kg/m2. Males had more total AT trips/week (10.8 ± 6.0), and biking trips/week; 2.0 ± 3.3; compared with females (AT 8.9 ± 6.5, p=.006; bike 1.0 ± 2.0, p=.001). There was no significant difference in walk trips/week between men 9.2 ± 5.4 and women 8.5 ± 5.8 trips/week. For males, biking was related to pushups (r= .20, p= .01) and walking was related to LDL levels (r= .53, p= .006). For females, biking was related to HDL (r= -.44, p= .02), walking was related to body fat percentage (r= -.21, p= .007), curl ups (r= .18, p= .02) and LDL (r= .34, p = .06). **CONCLUSION:** The results of this study illustrate that males and females participate in AT at different rates. It also illustrates that active travel provides different health and fitness outcomes for different genders. Further investigation is warranted on how gender moderates the relationship between AT participation and health and fitness outcomes.