Obese 3rd-5th graders Report Significantly Lower Levels of Physical Activity Compared to Their Healthy Weight Peers

Hannah Wilder, David Brock, PhD, Payal Desai, Dylan Bellavance, John Lavoie, Julia Parks, Connie Tompkins, PhD

Intro: The prevalence of obesity has rapidly increased among children in the past few decades. Participating in regular physical activity is an effective strategy in preventing childhood obesity.

Methods: A cross-sectional analysis of 26 participants [10 obese (>95th body mass index (BMI) percentile, 16 healthy weight (25th - ≥85th BMI percentile), 23 Caucasian, 2 Asian, 1 African-American; age range 7-10 years; 13 males, 13 females] prior to participation in a before-school PA program were administered the PAQ-C. (The PAQ-C is a 7-day PA recall questionnaire which assesses general levels of PA throughout the elementary school year for students ~ 8 to 14 years of age. Descriptive statistics were computed for all of the data. T-tests were performed to compare PA between the healthy weight and obese children. Significance was set at 0.05.

Results: Obese children reported a significantly lower PA level (2.64) for the prior 7 days compared to the healthy weight children (3.28). Although not significant, healthy weight children reported overall higher PA scores (2.95) compared to the obese children (2.49). Healthy weight children also reported higher PA scores (2.94) for the previous weekend compared to the obese (2.50) although this was not statistically significant.

Discussion: In the current study, the obese children reported lower PA for the prior 7 days, prior weekend, and overall than healthy weight children. Furthermore, 7 of the 10 obese children had a PAQ-C total score below the mean of all 26 participants whereas only 5 of the 16 healthy weight had a PAQ-C total score below the mean for all 26 participants.