PACER Performance of Children Ages 11-14 with Attention Deficit Hyperactive Disorder.

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Abstract

PURPOSE:
The purpose of this study was to examine performance on the Progressive Aerobic Cardiovascular Endurance Run (PACER) test in children with and without Attention Deficit Hyperactive Disorder (ADHD) over the course of a school year. Also investigated was the possible influence of age, sex, school sport participation, and body mass index (BMI) on results.

METHOD:
Utilizing a repeated measures design, 892 middle school children ages 11-14 (mean=12.25, SD=0.94) including 55 children with ADHD participated. While controlling for age, sex, sports participation, and BMI, children were tested on the Progressive Aerobic Cardiovascular Endurance Run (PACER) three times during the school year. Procedures specified in the FITNESSGRAM test manual were explicitly followed. Hierarchical linear modeling (HLM) was applied to analyze the data.

RESULTS:
Children with ADHD performed 8.6 fewer laps at intercept (baseline), than did healthy children without ADHD (t(878)=-6.20, p<.001). However, no significant differences emerged for time (slope). In addition, no significant interactions were found for ADHD with age, sex, sports participation, or BMI.

CONCLUSION:
A diagnosis of ADHD, independent of selected predictor variables, explained lower PACER performance.