

Physical education with academics can improve test scores

Published on May 2, 2011

When schools cut physical education programs so students can spend more time in the classroom, they may be missing a golden opportunity to promote learning, according to research to be presented Sunday, May 1, at the Pediatric Academic Societies (PAS) annual meeting in Denver.

The study adds to growing evidence that exercise is good not only for the body but also the mind. It also shows that physical education and academic instruction need not be mutually exclusive.

Researchers Kathryn L. King, MD, and Carly J. Scahill, DO, pediatric residents at the Medical University of South Carolina Children's Hospital, led by William S. Randazzo, MD, FAAP, and James T. McElligott, MD, sought to determine how implementing a daily physical activity program that incorporated classroom lessons would affect student achievement. First- through sixth-graders at an academically low-scoring elementary school in Charleston, S.C., took part in the program 40 minutes a day, five days a week. Prior to initiation of the program, students spent 40 minutes per week in physical education classes.

The school nurse was awarded several grants that were used to educate school administrators and revamp several classrooms into two gyms that housed equipment for an All Minds Exercise (AMX) room for older students and an Action Based Learning (ABL) lab for the younger schoolchildren.

"The teachers, administrators, parents and students at the school were brave enough to think out of the box to help the children learn in new ways," Dr. King said.

First- and second-graders moved through stations in the ABL lab, learning developmentally appropriate movement skills while basic academic skills were reinforced. For example, children traced shapes on the ground while sitting on scooters and hopped through ladders while naming colors on each rung.

Students in third through sixth grades had access to exercise equipment with TV monitors. For instance, a treadmill had a monitor that played geography lessons as the student ran through the scene, and a rock-climbing wall was outfitted with numbers that changed as they climbed to help students work on math skills.

Researchers compared state standardized reading test scores for the year before and the year after initiation of the program. Each student took standardized tests in the fall and spring. In the fall, the results included an individualized goal for each student to reach on the spring test. Researchers measured the number of students who met or exceeded their goal score in the spring.

Results showed that the time spent out of a traditional classroom in order to increase physical education did not hurt students' academic achievement. In fact, student test scores improved. Specifically, the percentage of students reaching their goal on the state tests increased from 55 percent before the program was initiated to 68.5 percent after the program was initiated.

"These data indicate that when carefully designed physical education programs are put into place, children's academic achievement does not suffer," Dr. King said.

"More studies are needed," Dr. Scahill added, "but there is growing substantial evidence that this kind of physical activity may help improve academic behavior, cognitive skills and attitudes."

Source: [American Academy of Pediatrics](#)