



STEPPING UP TO THE PLATE

School Programs to Increase Physical Activity

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Several real-life examples show how to implement whole-school physical activity programs.

Numerous reports have identified substantial health benefits from regular participation in physical activity during childhood, and schools have been identified as the primary agencies responsible for promoting the adoption of active lifestyles in children. *Healthy People 2010* (U.S. Department of Health and Human Services, 2000), *Guidelines for School and Community Programs: Promoting Lifelong Physical Activity* (Centers for Disease Control and Prevention, 1997), and public health leaders (e.g., McKenzie, Sallis, Kolody, & Faucette, 1997) all advocate for schools and teachers taking a major role in promoting physical activity.

A quality physical education program is at the heart of any plan to promote lifelong participation in enjoyable physical activity. In physical education, students are provided opportunities to engage in a range of developmentally appropriate movement activities and are taught basic skills that make participation more enjoyable. Competent physical education teachers play a critical role in giving students the knowledge to make good activity choices and helping them develop the skills and confidence needed to adopt healthy lifestyles. Nevertheless, while most schools require some physical education, it has become clear that the instructional time allotted is insufficient to provide children with the recommended minimum levels of physical activity. The National Association for Sport and Physical Education (NASPE, 2004) has suggested that elementary school-age children should accumulate more than 60 minutes of age-appropriate physical activity each day, and physical education classes alone cannot provide opportunities for children to achieve that recommendation. For this reason, schools are beginning to increase children's activity levels by incorporating a whole-school approach that involves interdisciplinary collaboration among all school personnel. Regular classroom teachers, for example, can promote daily exercise and help children understand the importance of making regular physical activity a lifelong habit. In addition, children can be provided with take-home activities for families to share. This article introduces several whole-school programs that have been designed to promote increased physical activity and healthy lifestyle choices for elementary school children.

Recognizing that physical education specialists alone cannot address the physical activity needs of children, researchers at Louisiana State University (LSU) conducted a series of studies designed to develop successful strategies for partnering with elementary schools to implement a whole-school intervention program. This article describes several of these investigations and how they helped to identify both the benefits and the challenges associated with implementing physical activity across the curriculum.

The success of a whole-school physical activity program depends on teachers and principals who recognize the potential health benefits of integrating physical activity into the total school experience and accept such a program on a wide-scale

basis. Teachers should recognize their role in addressing the national health objectives and have the confidence to engage students in health-promoting practices throughout the school day. They must be comfortable with movement content and have the interest and motivation to provide students with a range of opportunities to be physically active.

The Views of Teachers and Principals

One doctoral student at LSU used collective efficacy as a framework to examine elementary classroom teachers' and principals' perceptions about integrating physical activity into classroom lessons (Parks, 2003). Collective efficacy is an individual's belief that a group such as a school faculty can successfully work together to accomplish a goal (Bandura, 1982). Parks surveyed 314 elementary school teachers and 38 elementary school principals from the state of Louisiana. From these participants, 21 teachers and 12 principals were subsequently selected for interviews because they represented individuals with both high and low efficacy for promoting physical activity at the school level. The survey assessed the participants' own physical activity patterns, their willingness to integrate physical activity into classroom lessons, and their perceptions of their role preparedness. The interviews focused on their perceptions of the barriers and enablers to a successful school approach to physical activity promotion.

Study participants acknowledged the importance of promoting children's physical activity throughout the day and seemed willing to adopt and modify their classroom instruction to facilitate the inclusion of movement activities. They believed that the faculty's commitment to movement integration would depend on strong administrative support and on whether the schools were held accountable for such a program. A lack of training was identified as the most significant barrier to the success of a whole-school physical activity program. Teachers and principals reported that extensive inservice education programs would be needed before they could successfully negotiate this very serious professional barrier. The teachers also mentioned lack of time as a barrier and explained that the current emphasis on high-stakes testing would make it difficult to integrate physical activity into the curriculum on a consistent basis unless there were strong administrative support for a shift in priorities.

A Success Story

The researchers at LSU set out to locate a successful whole-school program that would serve as an example. Their efforts were guided by the belief that not all members of a school health promotion team need to be experts in physical-activity-related content if they have access to a highly qualified and motivated resource person. They located an accomplished National Board Certified physical education teacher who had convinced the principal and all teachers that

children need to have more opportunities to increase their physical activity, and the classroom teachers had agreed to model and support student participation in running activities. Hence, they reinforced the link between physical activity and health across the curriculum.

The physical education teacher taught each class of children on two days each week, helping students to develop the skills, knowledge, attitudes, and confidence to enjoy a range of activities. On days that the students were not scheduled for physical education, the classroom teachers and all students participated enthusiastically in running activities. Students could also run at recess and before or after school. Records were kept on individual cards in the gym, and children were given recognition rewards for their accomplishments. For every five miles completed, children received plastic running shoes that could be worn on ribbons tied around their necks. The students were highly motivated and understood that they could be physically fit without being elite athletes.

Effective programs can be designed to make teachers feel more confident.

Collaborating on a Larger Scale

Over the years, it has become clear that successfully creating an environment that fosters the development of health-related competencies in young students depends on the talents and self-confidence of teachers. This confidence, or efficacy, refers to the teachers' perception that their efforts will have a positive effect on students' health behaviors. Physical education specialists must take the lead, but the involvement of classroom teachers remains a major influence on children's participation in physical activity. Recognizing this, Roth (2005), an LSU graduate student, attempted to identify a plan for developing successful whole-school physical activity programs. This study involved 148 elementary classroom teachers at 11 schools. All schools and teachers participated in the "Around the Clock PE" program, but half of the schools and their teachers were assigned to an intervention group that included strategies to enhance self-efficacy. The "Around the Clock PE" program could be easily carried out by the specialists and classroom teachers. The district involved in the study required 30 minutes of daily physical education taught by a physical education teacher on one or two days a week and by the classroom teacher on the other days. "Around the Clock PE" was part of the regular physical education program and promoted physical activity using three intervention strategies. First, all students were encouraged to walk and run around the clock when possible. Teachers took the students outside daily for a 10-minute walk or run and recorded the activity accumulated by the class. Second, students were challenged to engage in active play at recess ("Recess Around the Clock"), and again the level of activity for the class was recorded. Finally, students were introduced to "Weekend Around the Clock," which encouraged them to maximize their physical activity on Saturdays and Sundays.

All activity levels for these two days were self-reported.

At the conclusion of the study, it was clear that self-efficacy predicts teacher participation in the physical activity interventions and that participation experiences influence subsequent self-efficacy. There was strong evidence that teacher self-efficacy for physical activity promotion is malleable and that effective programs can be designed to make teachers feel more confident. The efficacy-enhancing strategies implemented in the program were simple and easy to apply. For example, experimental teachers, specialists, and administrators received reports throughout the semester emphasizing the value of their work and the worth of the program they were implementing. The efficacy-enhancing strategies better prepared teachers to overcome environmental barriers and increase children's physical activity levels.

Public and Private Collaboration

Another intervention, "Smart Bodies," is an interactive education program designed to integrate a nutritional program and physical activities into elementary school core curricula. The project is a public-private partnership between the Louisiana State University Agricultural Center and the state's largest health insurer, Blue Cross and Blue Shield. The "Smart Bodies" program is in its second year, and 50 schools per year are selected to participate. The program targets children in grades K-5 and consists of three components: (1) the Louisiana Body Walk, (2) the OrganWise Guys, and (3) the *Take 10* curriculum. The Body Walk consists of a 35-foot by 45-foot, enclosed, walk-through exhibit representing the human body. The Body Walk experience includes 10 stations, each representing a part of the human body. Children learn about the brain, mouth, stomach, small intestine, heart, lungs, bones, muscles, skin, and the pathway for life. Teachers are provided with classroom activities for use before and after the students walk through the exhibit, and students are given a take-home activity book to read with their family. A maximum of 450 students can participate in the Body Walk experience during a single school day. The exhibit is moved from school to school. Parents and volunteers from the community are trained to engage the children in the activities at each of the 10 Body Walk Stations.

The OrganWise Guys characters are plush toys that represent the organs in the human body: Hardy Heart, Calci M. Bone, Windy (the lungs), Sir Rebrum, Madame Muscle, the Kidney Brothers, Peter Pancreas, Pepto (the stomach), Luigi Liver, and Peri Stolic. Each one is used as an educational tool—along with books, games, and informational videos—to teach young children physiology and lifelong healthy behaviors. The OrganWise Guys material also uses pictures, fun cartoons, and health behavior-tracking activities to teach children the fundamentals of how their body responds to their lifestyle and to challenge their knowledge on healthy lifestyle issues. Students learn decision-making, personal responsibility for good health choices, easy-to-remember anatomy, and complex physiology with easy-to-understand analogies. The developmentally sequenced

program makes learning and staying healthy fun and exciting for students in all elementary grades. More details about the OrganWise Guys can be found at their web site (www.organwiseguys.com).

The *Take 10* curriculum is designed to provide short bouts of activity for children in grades K-5 throughout the day and is a critical part of the "Smart Bodies" program. Teachers integrate physical activity and nutrition into the academic learning objectives for language arts, math, social studies, and science. The OrganWise Guys are incorporated into the *Take 10* activities, and activity cards and student worksheets are used to generate enthusiasm. For example, a video might show Hardy Heart with the message, "I love to beat fast when you TAKE 10." Several times during the day, children can get out of their seat to spend 10 minutes in some physical activity that is related to a subject lesson, or the activity breaks can be provided between lessons or classes. The materials provide age-appropriate physical activities that require no equipment or special training for teachers and are designed for use in the classroom. The *Take 10* Teacher Toolbox and curriculum materials can be found at their web site (www.Take10.com).

During the 2005-06 school year, a total of 89 elementary schools in 30 parishes in Louisiana participated in the "Smart Bodies" program. During this time, 34,714 children experienced the Body Walk. The *Take 10* activities are linked to standards and benchmarks that are associated with the Louisiana Educational Assessment Program (LEAP). Results of the program evaluation provide evidence that children benefit when teachers implement the program (Smart Bodies, 2006).

Who Will Lead the Way?

If schools are to successfully provide opportunities for physical activity throughout the school day, then physical education teachers will need to create a school environment that can produce the desired results. It is an unfortunate reality that when educational resources are limited and the emphasis is on high-stakes testing and advances in technology, physical education programs often do not fare well in the competition for funds and administrative support. If physical educators are to gain rather than lose status in the educational community, they must consider the realities of the political and social context and take action to demonstrate the vital role that physical education teachers should play in schools. A challenge for physical education specialists is to move beyond their current role and take responsibility as a wellness leader or physical activity director for the school and community. Physical educators must understand the concerns and obstacles that classroom teachers face when integrating physical activity across the curriculum, as well as the conditions that might lead to policies that facilitate and endorse physical activity opportunities throughout the day. Building a community among teachers, principals, parents, health care professionals, and recreation workers

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Summary

The research is very clear; teachers must work to promote physical activity for all children. In today's education climate most schools have at least one person who is truly dedicated to physical activity for youths: the physical educator. The physical educator will likely have the most knowledge related to wellness and engagement in physical activity. The physical educator will also be the most valuable resource for creating a plan that engages both students and staff and implementing it across the curriculum. Those who are most committed will eagerly accept the challenge and assume the duty of physical activity director. These individuals will likely be energized by serving in an important leadership capacity and by playing such an important role in keeping students physically active.

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could help promote an agenda dedicated to encouraging all school children to be physically active.

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