Combating Obesity in K-12 Learners

Combating Obesity in the Beginning: Incorporating Wellness and Exercise Principles in Teacher Education Programs

M. Felicia Cavallini Janice C. Wendt Desmond Rice

Classroom teachers could contribute more to the fight against obesity if all teacher preparation programs included wellness and exercise principles.

For approximately 20 years, sedentary living has been an official health hazard and a major risk factor for coronary heart disease (Pate et al., 1995). Indeed, coronary heart disease is more often caused by a sedentary lifestyle than by the other three risk factors combined (smoking, hypertension, and hyperlipidemia) (U.S. Department of Health and Human Services [USDHHS], 2005). Despite this risk, most Americans are sedentary. Less than half of all American adults engage in exercise for 20 minutes three or more times a week, regardless of intensity (USDHHS, 2005). This sedentary lifestyle is the result of the modern changes in culture—with increased time spent in front of the television, computer, and other technical devices—which have discouraged physical activity among children and adults alike. Additionally, our society is faced with concerns of environmental safety that discourage physical activity, as well as a fast-paced lifestyle that entices many to indulge in unhealthy convenience foods. Consequently, the incidence of overweight in children and teens (ages 6-19) in the United States tripled between 1980 and 2002, going from about 5 percent to about 16 percent (USDHHS, 2005). This rose further, to 17.1 percent, in 2003-2004 (Ogden et al., 2006). One apparent health consequence of this is a dramatic increase in type 2 diabetes among youths, especially in some minority populations, and a substantial occurrence of metabolic syndrome among obese children and adolescents (Molnar, 2004).

The good news is that epidemiological studies indicate that light-to-moderate exercise can have a significant effect on coronary heart disease prevention (USDHHS, 2000). Consistently exercising at an appropriate level can also help to prevent and manage hypertension, diabetes, osteoporosis, and obesity. In addition, regular exercise can play a role in mental health by having a positive effect on self-esteem, anxiety, depression, and mood (USDHHS, 1996).

Our national school system has the potential to have a profound impact on the health of the nation's youths. Fundamentally sound school health and physical education programs can foster healthy behaviors (McGinnis, Kanner, & DeGraw, 1991), and school interventions have the potential for increasing health and fitness and decreasing existing cardiovascular risk factors in youths (Pate et al., 1995). However, while many kinesiology departments across the country graduate effective physical education teachers, there is a lack of sufficient physical education time in schools. Only 56 percent of high school students take physical education, and the percentage of schools that provide daily physical education has declined to single digits at all levels (National Association for Sport and Physical Education & American Heart Association, 2006).

In order to help reverse the obesity trend in the United States, all school faculty members should make a contribution. Since obesity has reached epidemic proportions in the United States, educators need to understand and teach the concepts of healthy living and aim to exemplify a lifestyle of wellness and exercise so that

their students will be encouraged to incorporate fitness into their own lifestyle.

In order to mobilize all school faculty members in this effort, it is necessary for *all* teacher candidates who are becoming certified through teacher preparation programs to be exposed to a course that focuses on basic wellness and exercise principles, so that they will better understand the importance of a healthy, active lifestyle. Through studying areas such as nutrition, exercise safety, physical-activity program design, and health-related fitness, future teachers will have a greater probability of being able to positively influence children, teenagers, and young adults.

Teaching Wellness and Exercise Principles

Because research clearly shows the decline of fitness in today's youths, there is no doubt that *all* students in university teacher preparation programs—not just those majoring in kinesiology and health—would benefit both personally and professionally from taking a course in wellness and exercise principles. Such a course would first present the physical activity status of the United States population, various studies on physical activity, exercise barriers, knowledge of cardiovascular risk factors, and the effect of acculturation for minority groups. Next, the class would teach basic health, fitness, and wellness principles. Table 1 lists some of the major wellness curriculum areas that teachers in training might study. Finally, students would develop their own personal fitness program and be exposed to a variety of physical activities such as team sports, individual sports, fitness activities, recreational activities, and dance movements.

Many health and kinesiology departments already offer this type of class and could easily work in conjunction with the teacher education programs on campus. Basically, the course would be designed to teach prospective teachers the basics of a healthy, active, and fit lifestyle. It is hoped that requiring a wellness course for classroom teachers will instill in the teachers a positive attitude towards fitness that can be incorporated into their everyday lifestyle, and in turn, benefit students in their future classrooms.

To supplement this background and support the effort of classroom teachers, physical educators at each public elementary, middle, and secondary school could present guidelines and suggestions to classroom teachers at the beginning of each year that would help them to promote physical activity and wellness in their classrooms. For example, classroom teachers could encourage students to get their rest, eat balanced meals, not skip their recess or physical education time, and pursue physical activities outside of school. Physical educators can follow up on the effectiveness of incorporating the fitness and wellness exercise principles in the classroom during faculty meetings or by briefly meeting with each faculty member or with a group at a time.

Wellness and exercise principles can also be incorporated in each discipline across the curriculum by asking teachers to include this area in their respective subjects. For example, math teachers could have students calculate body fat composition, VO_2 max, or resting heart rate. Language arts classes could require students to keep a fitness log, or write about barriers to exercise, fitness principles, and acculturation issues. Science teachers could teach the cardiovascular system and which aerobic activities can benefit the heart and body. Additional cross-disciplinary ideas can be found in numerous *JOPERD* articles (e.g., Block, 2001; Christie, 2000; Hatch & Smith, 2004). It is worth noting that physical educators are not always a part of the school faculty, and when they are, they often teach only half of the student body. This obviously can undermine the efforts to improve student awareness of health and fitness, but with a mindful faculty and administration, wellness and exercise principles can still be taught with the leadership of the physical educators.

Teachers can encourage a healthier lifestyle through their own good example and through direct interaction with students in the form of feedback and mentoring. The public school setting is the perfect intervention site to educate our nation's children, teenagers, and young adults about the importance of an educated mind in a strong body. Too many lives are cut short due to heart conditions and bodily sickness that are caused by high stress levels, a lack of sleep, a sedentary lifestyle, or improper eating habits. Physical fitness is simply a wise investment to a happier, healthier life.

Table 1. Major Wellness Curriculum Areas

- Importance of fitness
- Exercise adherence
- Physical activity safety
- Skill and health-related fitness
- Cardiovascular fitness
- Flexibility
- Muscular strength
- Muscular endurance
- Body composition
- Weight training
- Nutrition and personal fitness
- Exercise program design
- Barriers to physical activity
- Environmental aspects of fitness
- How to measure one's own fitness level

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David Stodden (dfstodd@bgnet.bgsu.edu) is an assistant professor of Motor Learning & Control in the Division of Kinesiology at Bowling Green State University in Bowling Green, OH 43403. Jacqueline D. Goodway (goodway-shiebler1@osu.edu) is an associate professor at Ohio State University in Hilliard, OH 43026.

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Felicia Cavallini (fcavallini@limestone.edu) is an associate professor of physical education at Limestone College in Gaffney, SC 29340. Janice C. Wendt is an associate professor at the University of Huston in Humble, TX 77339. Desmond Rice is the director of professional development at Prince Mohammed Bin Fahd University in Al Khobar, Saudi Arabia.