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The Pill Not Taken: Revisiting Physical Education Teacher Effectiveness in a Public Health Context

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In "Physical Education Teacher Effectiveness in a Public Health Context," we took a broad view of physical education (PE) teacher effectiveness that included public health need and support for PE. Public health officials have been consistent and fervent in their support of PE, and for more than two decades, they have called on schools to promote and provide physical activity. They have strongly recommended PE because: (a) It is part of the formalized school curriculum and an essential access point to provide and promote physical activity for nearly all children, and (b) it is the only venue where the least active children experience physical activity at higher intensities. Within the current marginalized status of PE, public health is an ally. Hence, we took a broad public health position, indicated that teacher effectiveness is tied closely to PE program effectiveness, identified physical activity and its assessment as important parts of PE, offered a vision of teacher effectiveness that goes beyond the PE lesson to include components of the comprehensive school physical activity model, and emphasized the need for the collection of data to support PE and physical activity programs. We have read the written reviews and listened to dialogue about our article. In this follow-up article, we address the major comments using 4 themes: prioritizing public health over other PE emphases, PE having a muddled mission, concerns about physical activity, and extending the roles and skills of physical educators.

Keywords: evaluation, physical activity, physical fitness, schools

We appreciate the opportunity not only to publish our initial article (McKenzie & Lounsbery, 2013), but also to be able to respond to comments that were made about it in subsequent issues of *Research Quarterly for Exercise and Sport* and at the *Effective Teaching in Physical Education* Forum at the 2014 American Alliance for Health, Physical Education, Recreation and Dance National Convention in St. Louis, MO. We do not disagree with the positions about teacher effectiveness espoused by either Rink (2013) or Ward (2013); instead, we approached our article through a different lens—a broad and practical one. Our treatment of questions about evaluating physical education (PE) teacher effectiveness was contextualized by major problems facing PE as a curricular area (e.g., low enrollment requirements, cancelled classes, course waivers and substitutions, lack of requirements for teacher credentialing) and the very critical public health need for schools to promote and provide physical activity. We contend that to remain a viable part of the K–12 curriculum, PE must deliver clear and meaningful program outcomes. For this reason, we departed from the typical commentary on PE teacher effectiveness and instead took a broad public health stand, indicated that teacher effectiveness is closely tied to program effectiveness, identified physical activity as an important consideration in assessing teacher/program effectiveness, offered a vision of the assessment of teacher effectiveness that moves beyond the PE lesson to include components of the comprehensive school physical activity model, and emphasized the need for

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the collection of data to support the development and maintenance of programs.

We particularly enjoyed the interactions at the forum during which we were able to discuss concepts face to face with others and to respond immediately—rather than having to wait for publications to appear. All in all, despite having diverse backgrounds and career paths and using different words to explain the same concept, the speakers at the forum had very much in common—wanting students to have access to quality PE. We were particularly struck by how well our ideas concurred with those of Rink as expressed in her article (Rink, 2013) and in her coauthored text *Schoolwide Physical Activity: A Comprehensive Guide to Designing and Conducting Programs* (Rink, Hall, & Williams, 2010).

Overall, we are very pleased with the initial reactions to our article, especially the numerous comments endorsing the important role that PE can play in public health. We do not contend that other curricular approaches are without value (especially for individual personal growth), but we do not believe they will improve the status of K–12 PE in schools and in the eye of the public. In our article, we attempted to attend to the big picture, to be practical, and to go beyond the theoretical. Focusing on anything less than practicality when time and resources for K–12 PE are decreasing is akin to arguing about the window treatments of your house when it is burning down or asking the conductor to play a different song while your ship is sinking. In our view, we must rejuvenate our profession in such a way that it can thrive. To this end, we believe our strongest opportunity is to align PE with public health.

We have read the written reviews and listened to conversations about our article. In this current article, we address the broad comments that have been made about our ideas through four themes: prioritizing public health over other emphases, PE having a muddled mission, concerns about physical activity, and extending the roles and skills of physical educators.

WHAT DOES PUBLIC HEALTH HAVE TO DO WITH PE TEACHER EFFECTIVENESS?

Public health objectives are designed to reduce preventable death, disease, and disability among the population, and schools are a key setting for promoting public health (Institute of Medicine [IOM], 2013; Pate et al., 2006; U.S. Department of Health and Human Services [USDHHS], 2012). Globally, there has been a decline in PE offerings in schools since the 1970s (Puhse & Gerber, 2005) and programs are frequently marginalized, as they suffer from decreased curriculum time allocations, low subject status and esteem, and inadequate financial and personnel resources (Hardman, 2003; McKenzie & Lounsbery, 2009). Although parents often report that PE is important for their children and should be provided daily (National Association for Sport and Physical Education, 2003), there has been a general lack of support for PE at both the U.S. federal and state levels (USDHHS, 2013). PE is not part of the common educational core, and many state PE coordinators have limited backgrounds in PE, resulting in unintended negative consequences including reduced time and resources, state mandates for time not being met, and waiver programs exempting students from participating. As a result, PE continues to have a diminishing role in the school curriculum. These barriers greatly affect the quantity and quality of PE and what it can accomplish. Therefore, we believe that questions about teacher effectiveness and teacher assessment cannot be addressed without contextualizing PE's marginalized status within the K–12 curriculum.

We described what we believe to be the major challenges to the current conduct of PE in "School Physical Education: The Pill Not Taken," an article we wrote for the medical community in response to the "exercise is medicine" slogan of the American College of Sports Medicine (McKenzie & Lounsbery, 2009). In addition to the dosage (i.e., frequency and duration) of PE, we expressed concern about its content, palatability, and who delivers it (e.g., PE specialists, classroom teachers). In short, PE needs to be revived, and we believe the public health issues of sedentary living and obesity are keys to reinvigorating it and making it an essential part of the K–12 curriculum. *Why?* The need for schools to provide and promote physical activity is now far greater than during previous decades when children accrued substantial amounts of physical activity through daily living. Today some children are at increased risk for having low levels of physical activity, particularly those from ethnic minorities (especially girls), those with disabilities, and those living in neighborhoods where activity is restricted by safety concerns or inadequate facilities (IOM, 2013). Unlike most other venues for physical activity (e.g., youth sports, clubs, private facilities), schools are in place to provide opportunities for physical activity regardless of children's socioeconomic status (USDHHS, 2013). As it is institutionalized as part of the K–12 curriculum, most children are likely to get some PE, and this is the ONLY venue across the life span where the least active person can experience physical activity at higher intensities. For this reason, there is no better access point for physical activity than school PE, and the profession has been fortunate that the greatest proponents of PE during the past two decades have been public health entities.

PHYSICAL EDUCATION HAS A MUDDLED MISSION

Pate and Hohn (1994) first coined the "muddled mission" phrase two decades ago, and it is still relevant. Physical fitness and health have always played some part in PE, but

they have not always been its primary focus. In fact, the focus of PE has changed to reflect societal demands so frequently that it has been referred to as the "chameleon of all curricula" (McKenzie, 2001). From the 1950s to 1990s, numerous curricular and instructional models, including developmental education, humanistic education, movement education, kinesiology studies, play education, and personal meaning, made their way into PE (Siedentop & van der Mars, 2011), and these various models still impact what is taught in PE and how it is delivered. Many curriculum and instructional models are still in vogue (Metzler, 2011). Popular among these are: (a) the self-responsibility model (Hellison, 2011), which focuses mainly on concepts such as teamwork, cooperation, self-responsibility, problem solving, and cultural awareness; and (b) the sport education model (Siedentop, Hastie, & van der Mars, 2011), which views sport as an important component of the American culture and is designed to prepare students to master diverse sporting roles (e.g., as a player, coach, referee, trainer, reporter, manager). Irrespective of specific theoretical models, sport skill instruction (e.g., for basketball, soccer, volleyball) has been the mainstay of most programs, especially in secondary schools. Sport is definitely an important venue for many children to be physically active, but it certainly is not the only one, and over one's life span the opportunities to engage in sports diminish for most people.

CONCERNS ABOUT PHYSICAL ACTIVITY

Physical Activity Is Not Physical Education

First and foremost, we contend that the problems of sedentary living are complex, and to provide and promote physical activity well requires specific training. If that were not the case, the very challenge of sedentary living as a public health problem would be resolved by now, not getting worse. We believe PE teachers should be physical activity authorities. They should not only conduct lessons that provide substantial amounts of physical activity, but they should also be promoting physical activity both in and outside of school. This is clearly not happening to the degree it could or should. We also want to emphasize that providing health-optimizing physical activity is only one of the many goals of contemporary PE, which also has expectations for children's motor skill, cognitive, social, and emotional outcomes. Nonetheless, given the limited time children are actually enrolled in PE, it is not feasible to accomplish all the proposed outcomes—hence, we and other professionals promote the concept of "health-optimizing physical education" (HOPE; Metzler, McKenzie, van der Mars, Barrett-Williams, & Ellis, 2013; Sallis et al., 2012). The main goal of HOPE is the development of lifelong physical activity, a concept aligned with public health objectives. This suggests that PE should be an enjoyable experience during which students learn generalizable movement and behavioral skills that will transfer into diverse activities, sports, and games offered at school, in the community, and later in life.

Prioritization of goals does not mean narrowing—of programs or of thinking. Shifting to HOPE does not necessarily narrow the goals of PE, but it does call on educators to focus on goals and to *prioritize* them. Regarding this, we wrote:

> Other nationally recommended goals for PE (e.g., social and emotional outcomes) are also important, but they are assigned lower priority because they are the responsibility of all school curricular areas, not just PE. Meanwhile, PE is the only subject matter to specifically target physical fitness and motor skills, and it provides the only opportunity (and requirement) for some children to engage in health-enhancing physical activity, especially at high-intensity levels. (McKenzie & Lounsbery, 2013, p. 420)

To reaffirm, having diverse, commonly stated goals of PE are of value—but we believe they should be focused under the HOPE umbrella. For example, children's enjoyment of PE is important and their attitudes toward it should be assessed (e.g., about types and intensity of activities) as was done in the development of SPARK (Sports, Play, and Active Recreation for Kids), a HOPE-related, evidence-based PE program (McKenzie, Alcaraz, & Sallis, 1994), and in the tracking of changes in student attitudes over time (Prochaska, Sallis, Slymen, & McKenzie, 2003).

Physical Activity Is Not Learning

Dyson (2014) got it right in his review—we are not advocating for mindless physical activity! We attempted to make this clear in our article, and in the abstract, we wrote:

> Within a public health context, it is then important to assess how teachers provide students with ample health-enhancing physical activity to help them become physically fit and to learn generalizable movement and behavioral skills designed to promote physical activity and fitness outside of class time. (McKenzie & Lounsbery, 2013, p. 419)

Later (p. 420), we added: "Effective teaching is ultimately judged by the achievement of learning outcomes, and to date, the effectiveness of PE teachers in helping students reach public health outcomes has received little attention." Although we did not identify any specific learning outcomes, we did allude to those related to physical fitness, motor skill development and engagement, and physical activity participation. We believe that student

learning needs to move far beyond knowledge and cognitions. Most adults know about the ill effects of smoking cigarettes, ingesting massive amounts of fast food and alcohol, and driving too fast—yet they engage in these behaviors at high rates. Some knowledge is important (e.g., no child should graduate from high school without knowing the physical activity guidelines and having a personal plan for meeting them), and a portion of lesson time should be allocated to relevant knowledge acquisition. Nonetheless, we believe many concepts could be better learned at a different time (e.g., as homework) and in a more conducive environment (e.g., online, rather than when the cold wind is blowing dust across a noisy, wide-open field). (The first author now regrets spending so much time lecturing about the history of sports to high school students who would have been better off if they had spent lesson time actually practicing skills).

Thirty years ago, sedentary living was not a public health problem—now it is! To be effective in PE now (in the 21st century) will require both curricular and instructional modifications from days gone by. Traditional PE typically focused on events occurring in the gymnasium, with little attention given to students learning the behavioral skills needed to engage in physical activity for the long term. An important goal of HOPE is the promotion of the maintenance and generalization of physical activity. Teaching students to self-manage their behavior offers promise for promoting physical activity outside of school and in later years. Self-management involves three basic processes: self-monitoring, self-evaluation, and self-reinforcement. There is some support to suggest that teaching self-management skills may improve physical activity among youths, including children in the CATCH (Child and Adolescent Trial for Cardiovascular Health; McKenzie et al., 1996) and SPARK (Marcoux et al., 1999) studies and adolescents in the Class of 1989 Study (Kelder, Perry, Peters, Lytle, & Klepp, 1995). With little research evidence to suggest that increased knowledge about the importance of physical activity or about how the body works results in more physical activity, the emphasis on these self-management programs was on students learning behavioral skills, not just knowledge. It is also important to note that these self-management programs were classroom-based and that they were conducted to supplement active PE classes, not to substitute for them. The results of these studies also suggest that although upper-elementary school children can learn and perform the behavioral strategies, self-management programs are more likely to be successful with secondary school students, whose time and access to physical activity is less subjected to parental control than younger students.

Lastly, sedentary living is a persistent and growing problem. Addressing physical inactivity is complex and requires a coordinated approach that includes numerous school components, especially PE. HOPE programs coincide with this need, and we contend that the success of HOPE and other coordinated physical activity programs is contingent upon highly trained professionals (such as PE teachers) leading the efforts.

EXTENDING THE ROLES AND SKILLS OF PHYSICAL EDUCATORS

Even when offered daily, PE cannot provide children with the recommended 60 min of physical activity. Thus, to further influence the promotion of physical activity, physical educators need to redesign their curricula and instructional behaviors to promote out-of-class activity, modify the school environment so students have opportunities to be active on campus outside of PE lessons, and work to develop physical activity linkages in the community. We strongly endorse the "the comprehensive school physical activity model" (IOM, 2013) and the evidence is clear that the PE teacher is the major influencing variable within successful comprehensive school physical activity programs. Our own research has shown that: (a) PE teachers and school principals can and often do interact with one another about PA programs both within the school and with counterparts from other schools; and (b) these interactions may have important implications for PE and physical activity policy adoption and/or degree of policy implementation (Lounsbery, McKenzie, Trost, & Smith, 2011). Many physical educators, however, believe that their main place in education is in front of a class of students and that they do not have time to do other things. We understand this concept, because that is how most current teachers have been trained. Our contention, however, is that teachers must move beyond this belief in order to have greater impact. Some teachers also find it demeaning to move away from being in front of the class and that doing so makes them second-class citizens. Our belief is just the opposite—school principals spend very little time in front of classes, and yet they are the most influential people on campuses. We believe that the expanded role of the PE teacher, which includes both instructional (teaching PE classes) and administrative (e.g., creating policies, coordinating programs such as shared use of activity facilities) duties, is so important that it be supported by a 12-month contract.

Promoting physical activity outside of class, redesigning school environments, developing community linkages, and advocating for PE and physical activity programs require skills typically not currently stressed in undergraduate PE teacher education (PETE) programs. These and other skills, including mentoring classroom teachers in schools where PE specialists are not available, are needed if PE teachers are to make a full public health impact. In addition, assessment substantiates program value, and teachers are increasingly being asked to justify their programs. Now more than ever, there is a need for effective teachers to

become skilled in collecting, analyzing, summarizing, and sharing data. As a result, revisions should be made to both undergraduate PETE and in-service staff development programs (McKenzie, 2007). Changes include modifying course content (e.g., focusing more on data collection and behavior change skills and less on biological knowledge), increasing the diversity of field experiences (to include physical activity settings beyond PE), and developing teachers' promotion, advocacy, and politicking skills.

CONCLUDING COMMENTS

Schools belong to the community, and they are an investment in public health (Allensworth, Lawson, Nicholson, & Wyche, 1997). They are the institution with primary responsibility for promoting physical activity, and within schools, PE is an important component of coordinated and comprehensive health programs (IOM, 2013). PE has the important curricular goal of promoting the adoption and maintenance of physically active lifestyles. We believe the current diffused mission of PE and lack of accountability for teachers promoting physical activity weakens the impact that schools could have on public health. Thus, a reorientation of programs and a reallocation of school resources are in order. These modifications should involve changing both the content and the conduct of PE as well as broadening the roles that physical educators play as school staff members.

We do not expect PE or even entire school physical activity programs to solve the problem of child inactivity. However, children spend nearly half their waking day in schools and we do believe that "public health is everybody's business." Physical educators have an important choice—rather than continuing in the weak position of advocating for PE alone, we believe the profession should join with others (public health and medicine) in the quest to making an even stronger difference in the physical activity and health of our children.

REFERENCES

Allensworth, D. J. (Ed.). (1997). *Schools and health: Our nation's investment*. Washington, DC: Institute of Medicine, National Academy Press.

Allensworth, D., Lawson, E., Nicholson, L., & Wyche, J. (Eds.). (1997). *Schools and health: Our nation's investment*. Washington, DC: Institute of Medicine, National Academy Press.

Dyson, B. (2014). Quality physical education: A commentary on effective physical education teaching. *Research Quarterly for Exercise and Sport*, *85*, 144–152.

Hardman, K. (2003). Worldwide survey on the state and status of physical education in schools: Foundations for the deconstruction and reconstruction of physical education. In K. Hardman (Ed.), *Physical education: Deconstruction and reconstruction—issues and directions* (pp. 15–34). Schorndorf, Germany: Hofman.

Hellison, D. (2011). *Teaching personal and social responsibility through physical activity* (3rd ed.). Champaign, IL: Human Kinetics.

Institute of Medicine. (2013). *Educating the student body: Taking physical activity and physical education to school*. Washington, DC: National Academies Press.

Kelder, S. H., Perry, C. L., Peters, R. J., Lytle, L. L., & Klepp, K.-I. (1995). Gender differences in the Class of 1989 Study: The school component of the Minnesota Heart Health Program. *Journal of Health Education*, *26*(Suppl. 2), S36–S44.

Lounsbery, M. A., McKenzie, T. L., Trost, S. G., & Smith, N. J. (2011). Facilitators and barriers to adopting evidence-based physical education in elementary schools. *Journal of Physical Activity & Health*, *8*(Suppl. 1), S17–S25.

Marcoux, M. F., Sallis, J. F., McKenzie, T. L., Marshall, S., Armstrong, C. A., & Goggin, K. (1999). Process evaluation of a physical activity self-management program for children: SPARK. *Psychology and Health*, *14*, 659–677.

McKenzie, T. L. (2001). Back to the future: Health-related physical education. In P. Ward & P Doutis (Eds.), *Physical education for the 21st century* (pp. 113–131). Lincoln: University of Nebraska.

McKenzie, T. L. (2007). The preparation of physical educators: A public health perspective. Twenty-Sixth D.A. Sargent Commemorative Lecture. *Quest*, *59*, 346–357.

McKenzie, T. L., Alcaraz, J., & Sallis, J. F. (1994). Assessing children's liking for activity units in an elementary physical education curriculum. *Journal of Teaching in Physical Education*, *13*, 206–215.

McKenzie, T. L., & Lounsbery, M. A. F. (2009). School physical education: The pill not taken. *American Journal of Lifestyle Medicine*, *3*, 219–225.

McKenzie, T. L., & Lounsbery, M. A. F. (2013). Physical education teacher effectiveness in a public health context. *Research Quarterly for Exercise and Sport*, *84*, 419–430.

McKenzie, T. L., Nader, P. R., Strikmiller, P. K., Yang, M., Stone, E. J., Perry, C. L., . . . Kelder, S. H. (1996). School physical education: Effect of the Child and Adolescent Trial for Cardiovascular Health. *Preventive Medicine*, *25*, 423–431.

Metzler, M. W. (2011). *Instructional models for physical education*. Scottsdale, AZ: Halcomb Hathaway.

Metzler, M., McKenzie, T. L., van der Mars, H., Barrett-Williams, S., & Ellis, R. (2013). Health optimizing physical education (HOPE): A new curriculum model for school programs—Part 1: Establishing the need and describing the model. *Journal of Physical Education, Recreation and Dance*, *84*(3), 41–47.

National Association for Sport and Physical Education. (2003, April). *Parents' views of children's health and fitness: A summary of results*. Reston, VA: Author.

Pate, R. R., Davis, M. G., Robinson, T. N., Stone, E. J., McKenzie, T. L., & Young, J. C. (2006). Promoting physical activity in children and youth: A leadership role for schools (AHA Scientific Statement). *Circulation*, *114*, 1214–1224.

Pate, R. R., & Hohn, R. C. (1994). Introduction: A contemporary mission for physical education. In R. R. Pate & R. C. Hohn (Eds.), *Health and fitness through physical education* (p. 2). Champaign, IL: Human Kinetics.

Prochaska, J. J., Sallis, J. F., Slymen, D. J., & McKenzie, T. L. (2003). A longitudinal study of children's enjoyment of physical education. *Pediatric Exercise Science*, *15*, 170–178.

Puhse, U., & Gerber, M. (Eds.). (2005). *International comparison of physical education: Concepts, problems, prospects*. Oxford, England: Meyer & Meyer Sport.

Rink, J. E. (2013). Measuring teacher effectiveness in physical education. *Research Quarterly for Exercise and Sport*, *84*, 407–418.

Rink, J. E., Hall, T. J., & Williams, L. H. (2010). *Schoolwide physical activity: A comprehensive guide to designing and conducting programs*. Champaign, IL: Human Kinetics.

Sallis, J. F., McKenzie, T. L., Beets, M. W., Beighle, A., Erwin, H., & Lee, S. (2012). Physical education's role in public health: Steps forward and

backward over 20 years and HOPE for the future. *Research Quarterly for Exercise and Sport*, *83*, 125–135.

Siedentop, D., Hastie, P., & van der Mars, H. (2011). *Complete guide to sport education* (2nd ed.). Champaign, IL: Human Kinetics.

Siedentop, D., & van der Mars, H. (2011). *Introduction to physical education, fitness, and sport* (8th ed.). Mountain View, CA: Mayfield.

U.S. Department of Health and Human Services. (2012). *Physical Activity Guidelines for Americans midcourse report: Strategies to increase physical activity among youth*. Washington DC: Author. Retrieved from http://www.health.gov/paguidelines/midcourse/pag-mid-course-report-final.pdf

U.S. Department of Health and Human Services. (2013). *Results from the School Health Policies and Practices Study 2012*. Atlanta, GA: Centers for Disease Control and Prevention. Retrieved from http://www.cdc.gov/HealthyYouth/shpps/index.htm

Ward, P. (2013). The role of content knowledge in conceptions of teaching effectiveness in physical education. *Research Quarterly for Exercise and Sport*, *84*, 431–440.

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